Attachment 1 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 1

PROPOSED HOTEL DEVELOPMENT AT 375-377 PUNT RD RICHMOND

ARCHITECTS

Attachment 1 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 1

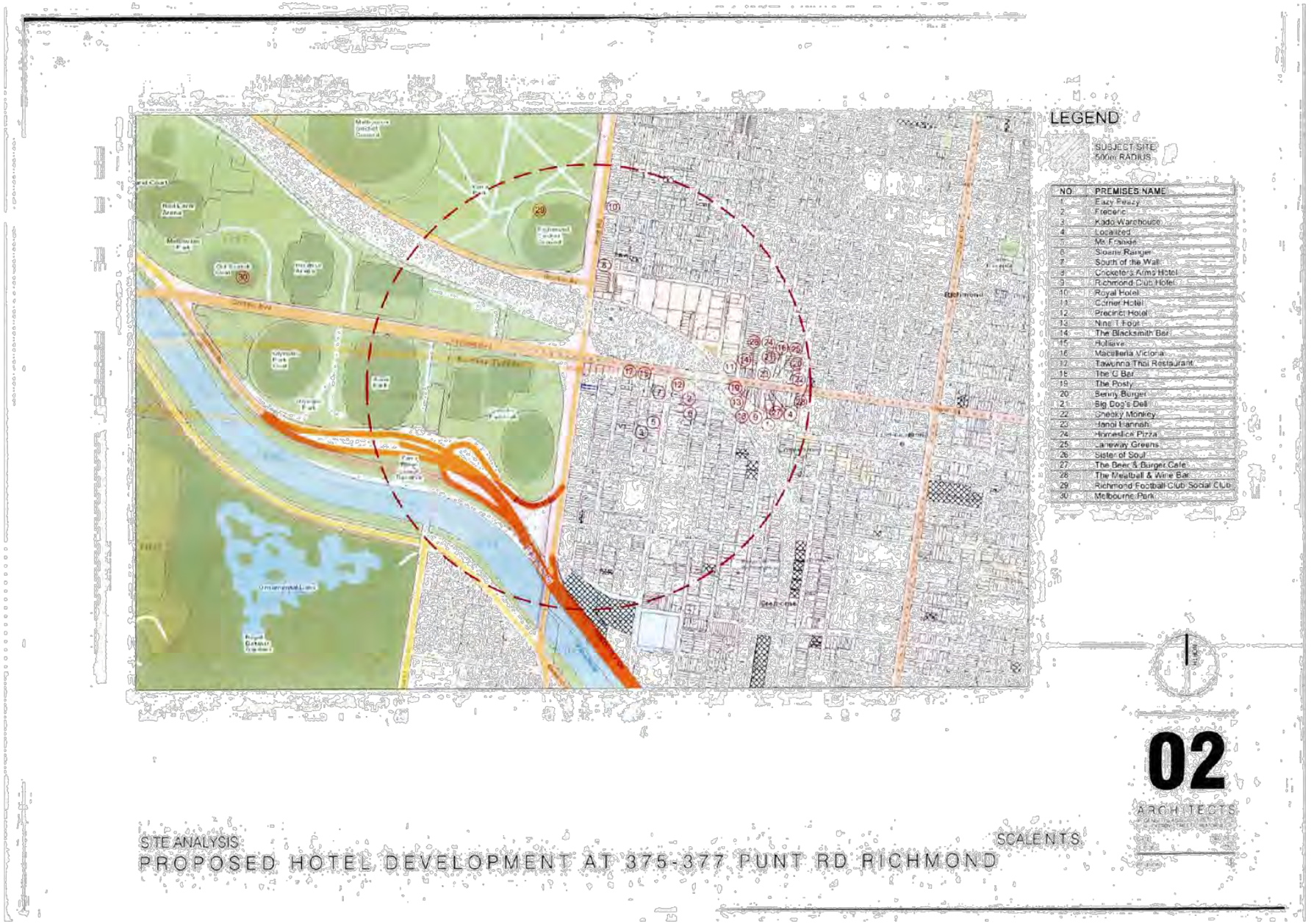
LOCATION PLAN

PROPOSED HOTEL DEVELOPMENT AT 375-377 PUNT RD RICHMOND

01

ARCHITECTS

Attachment 1 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 1



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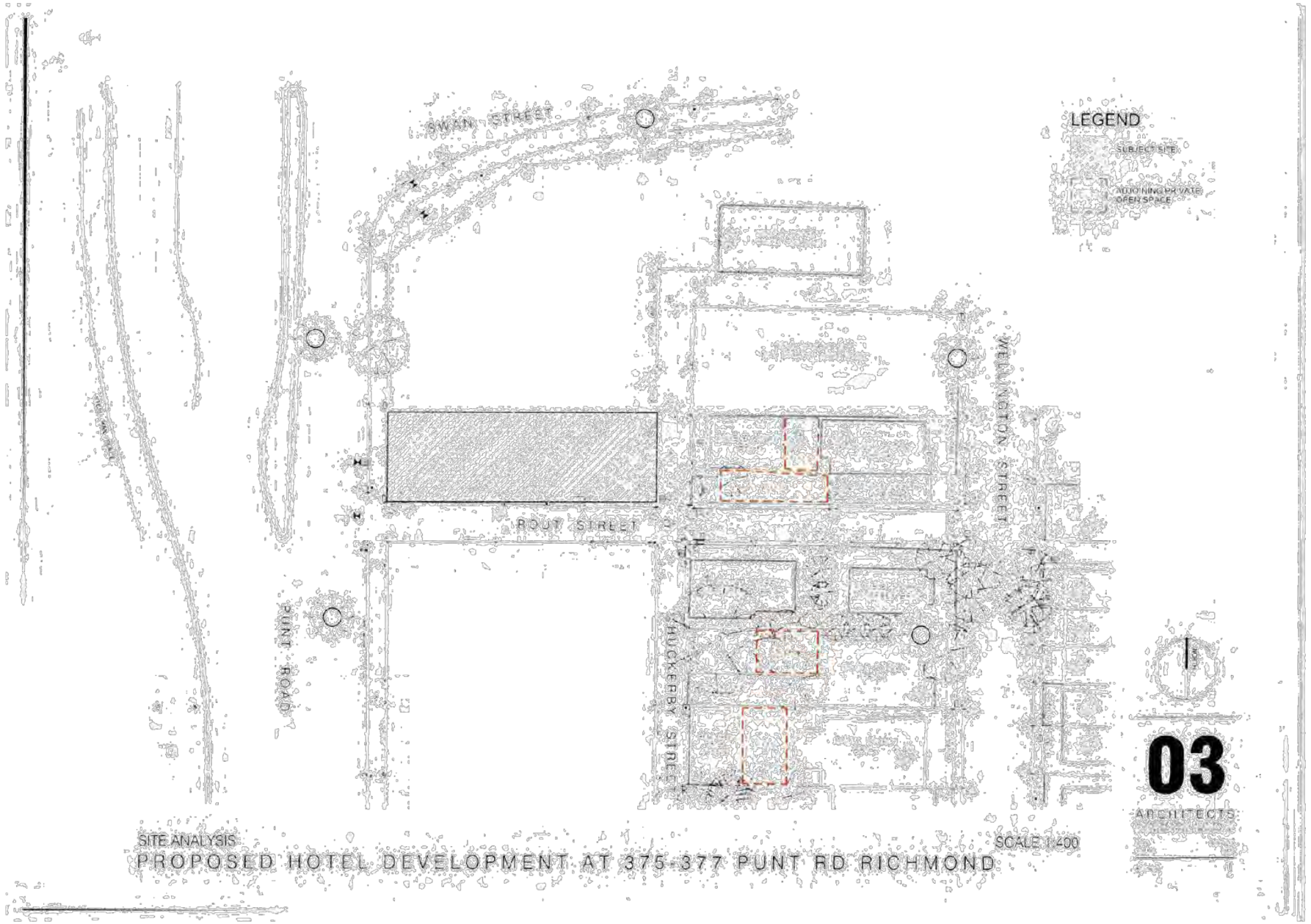

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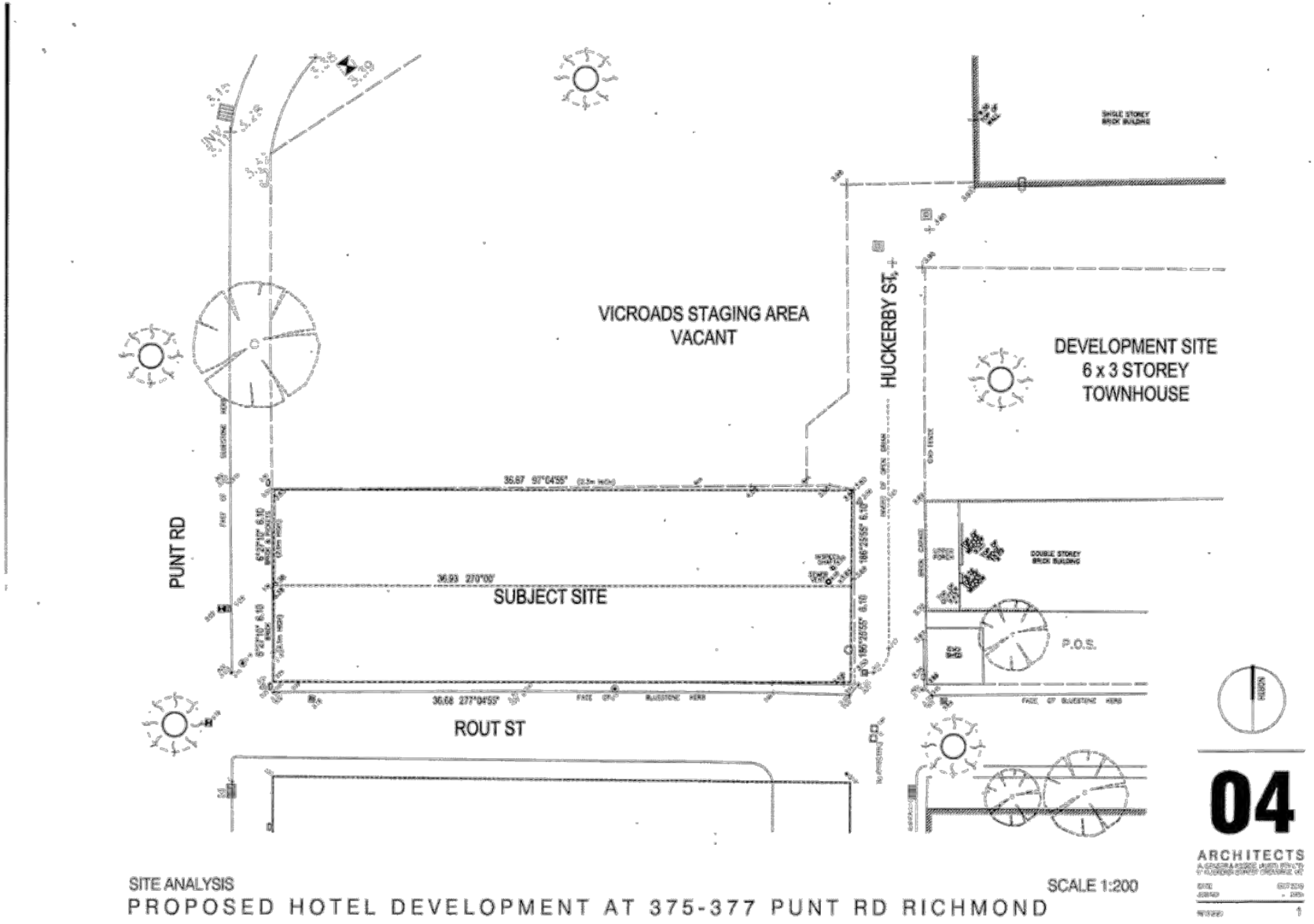

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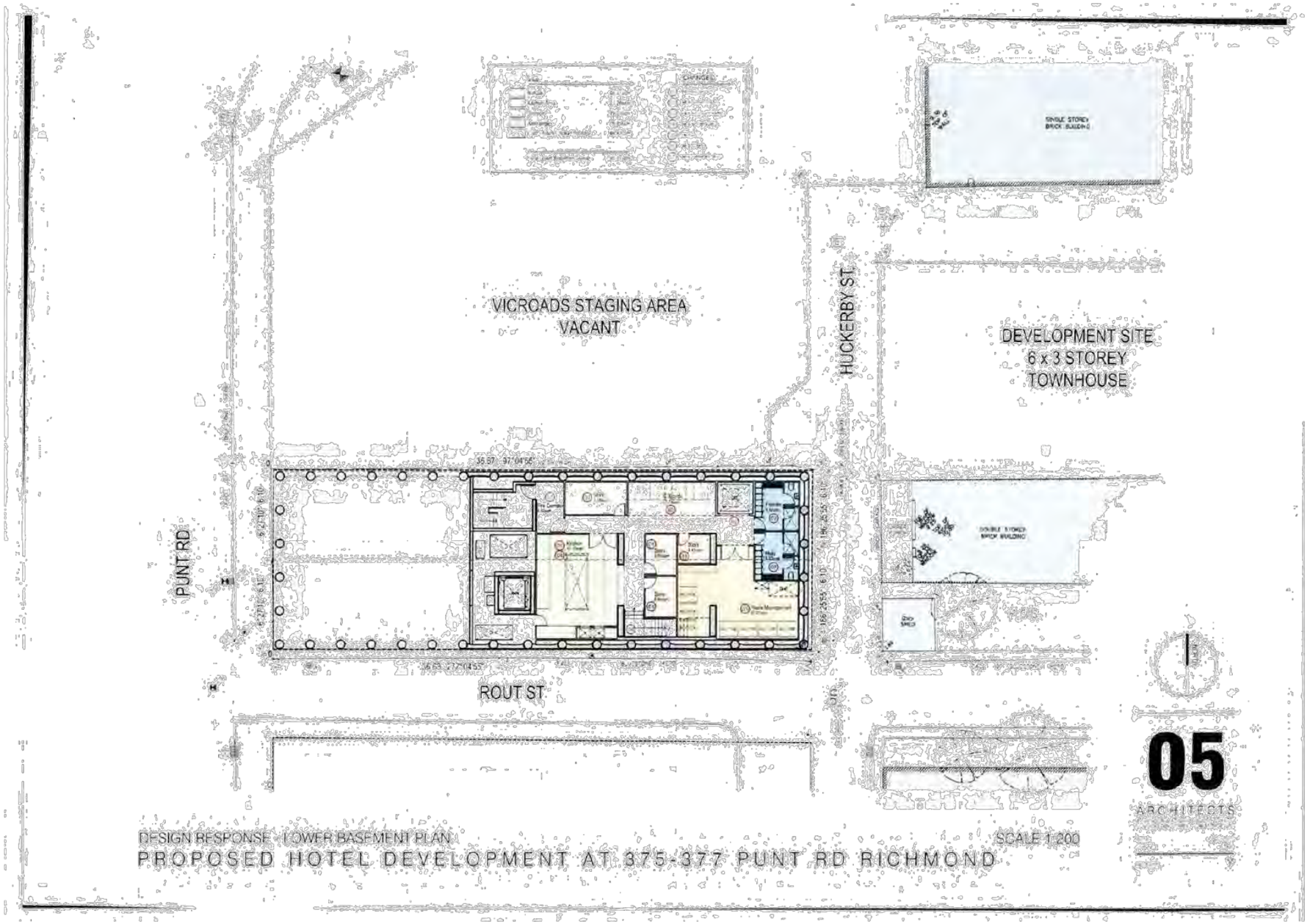

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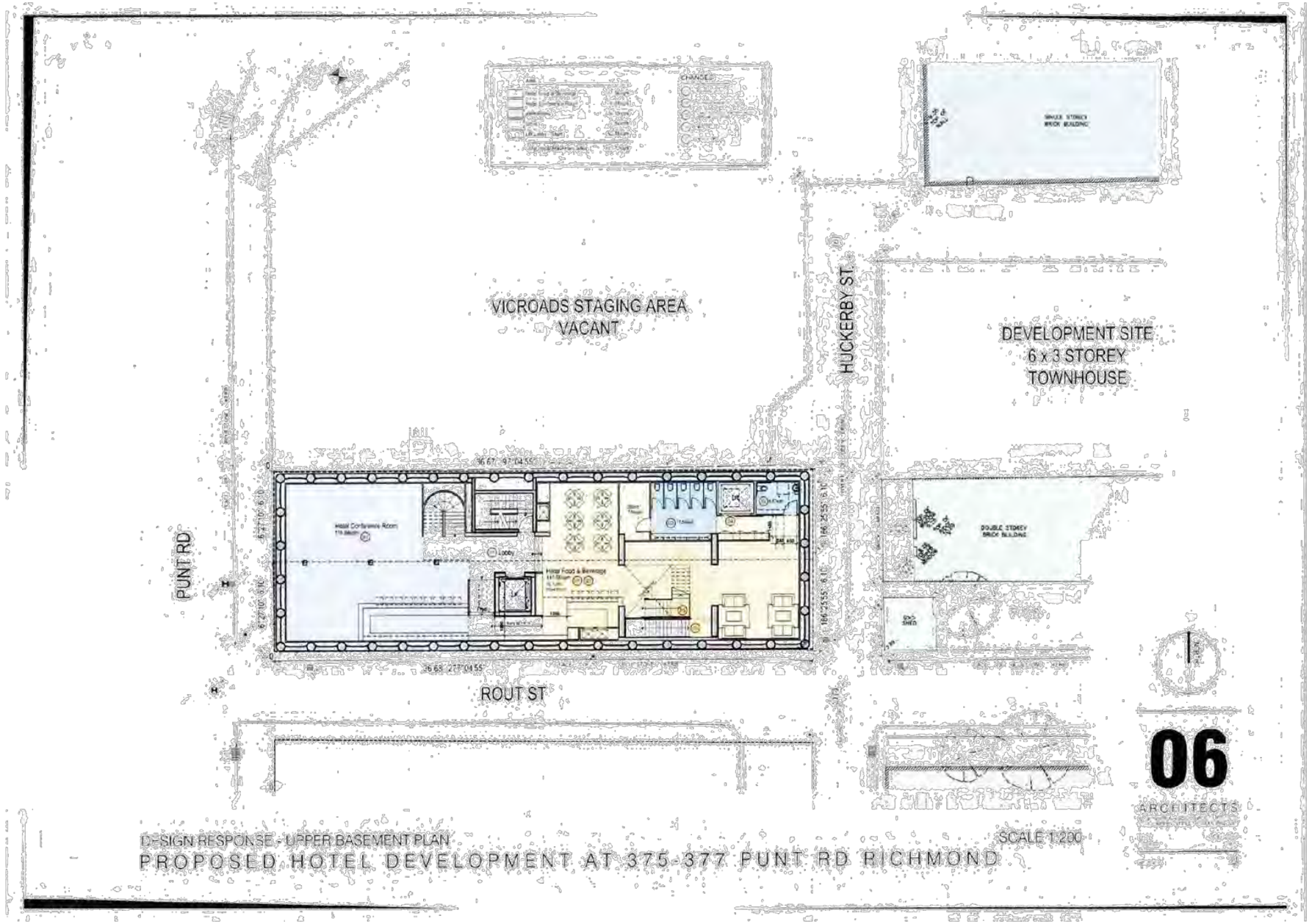

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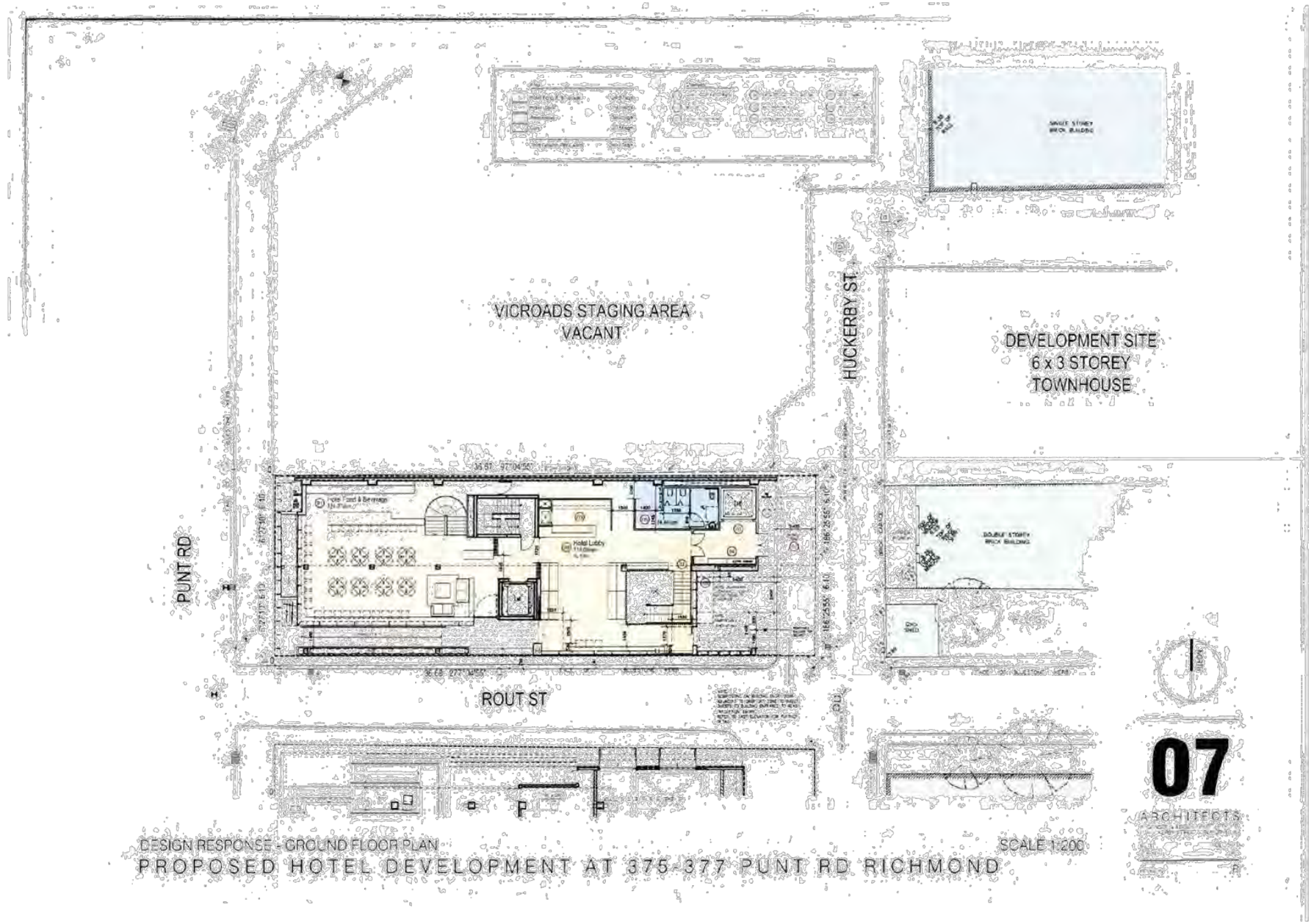

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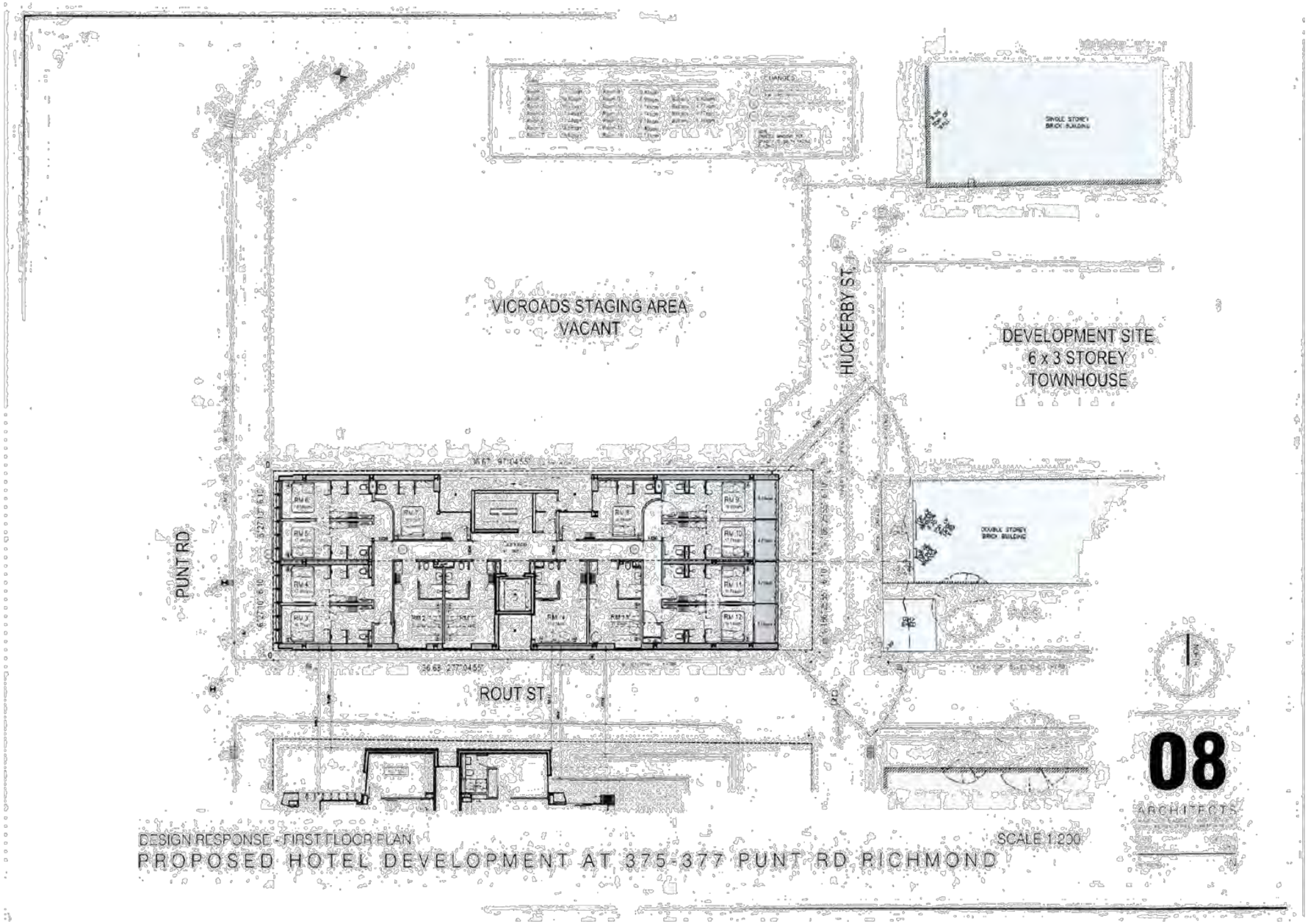

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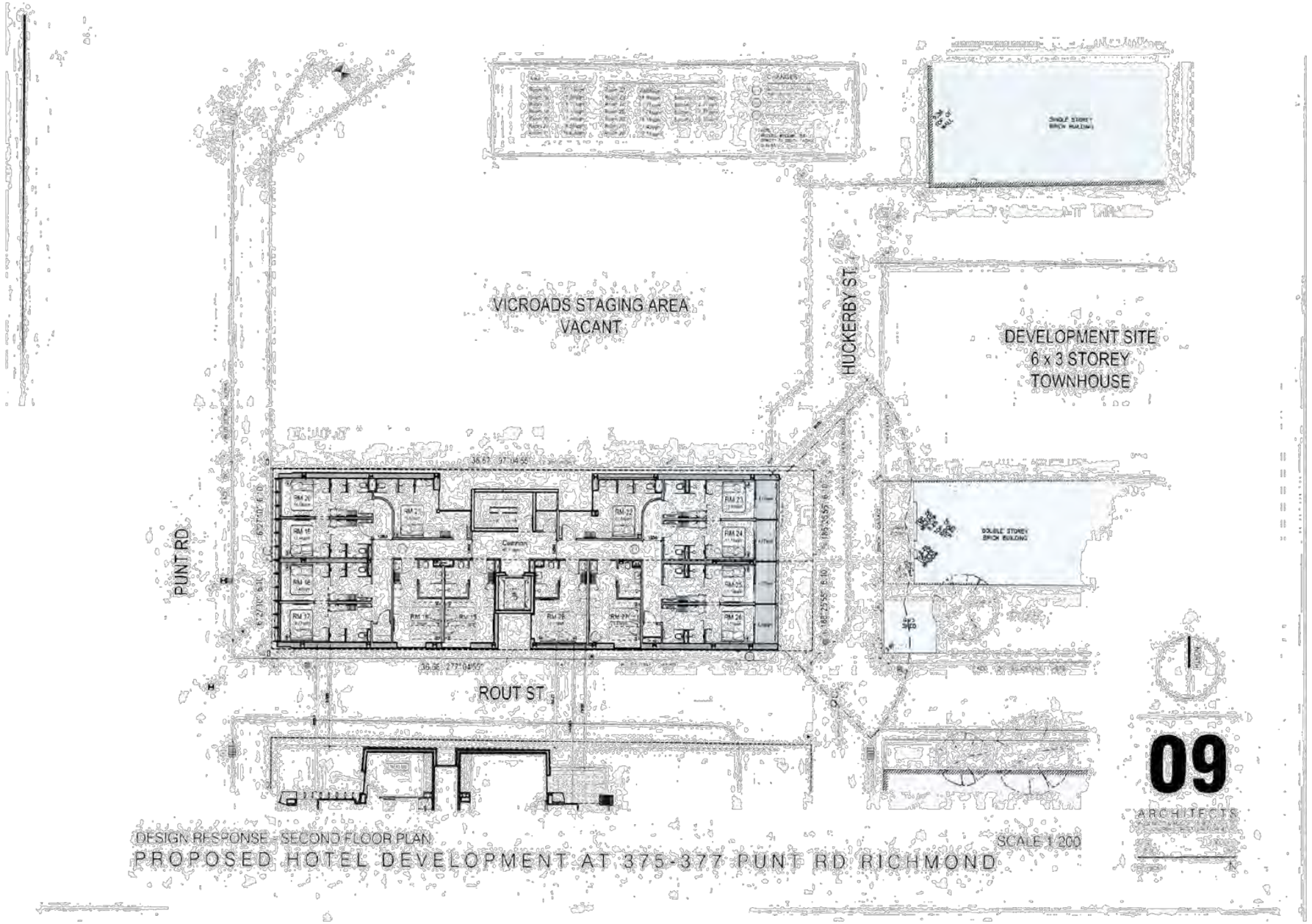

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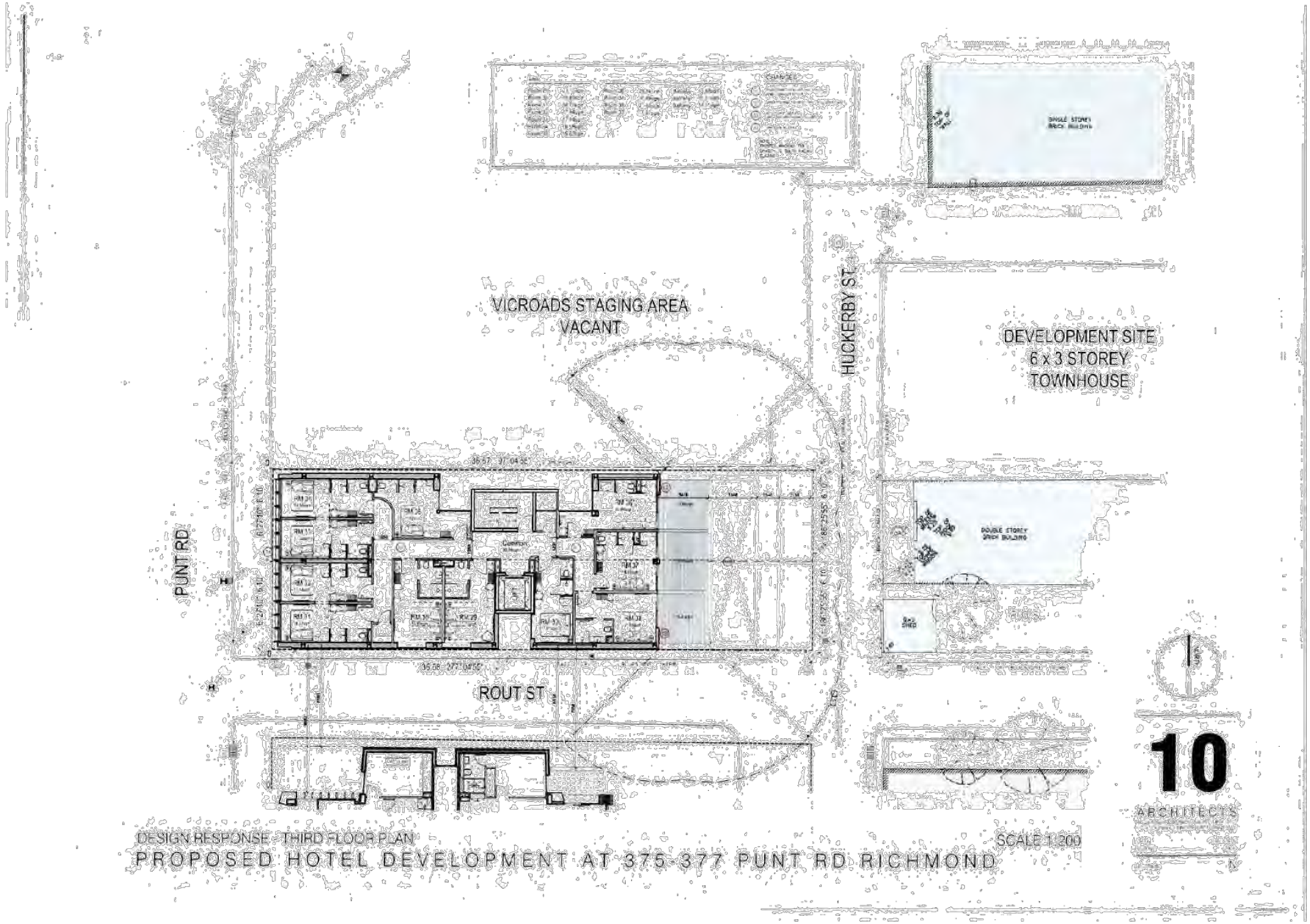

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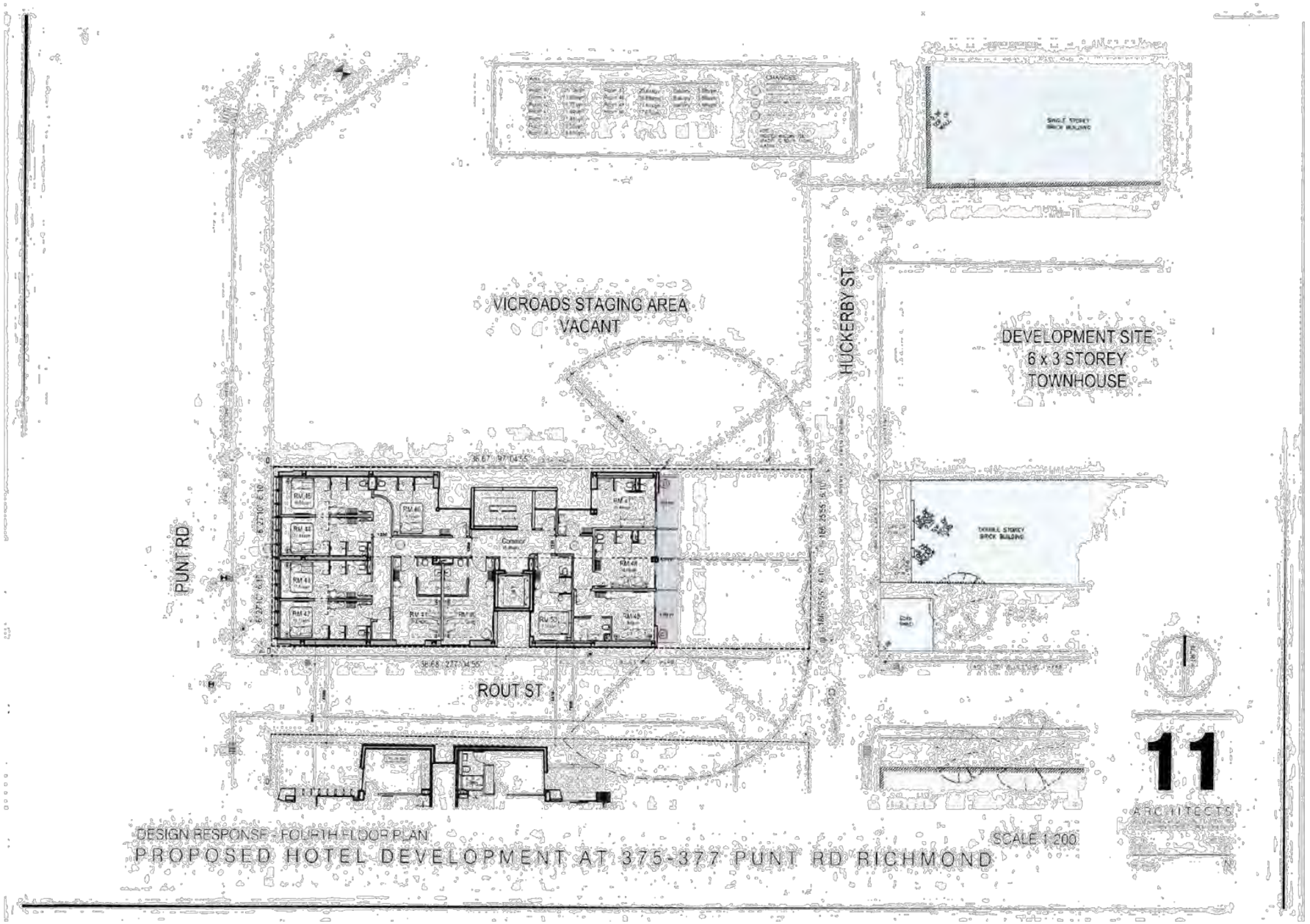

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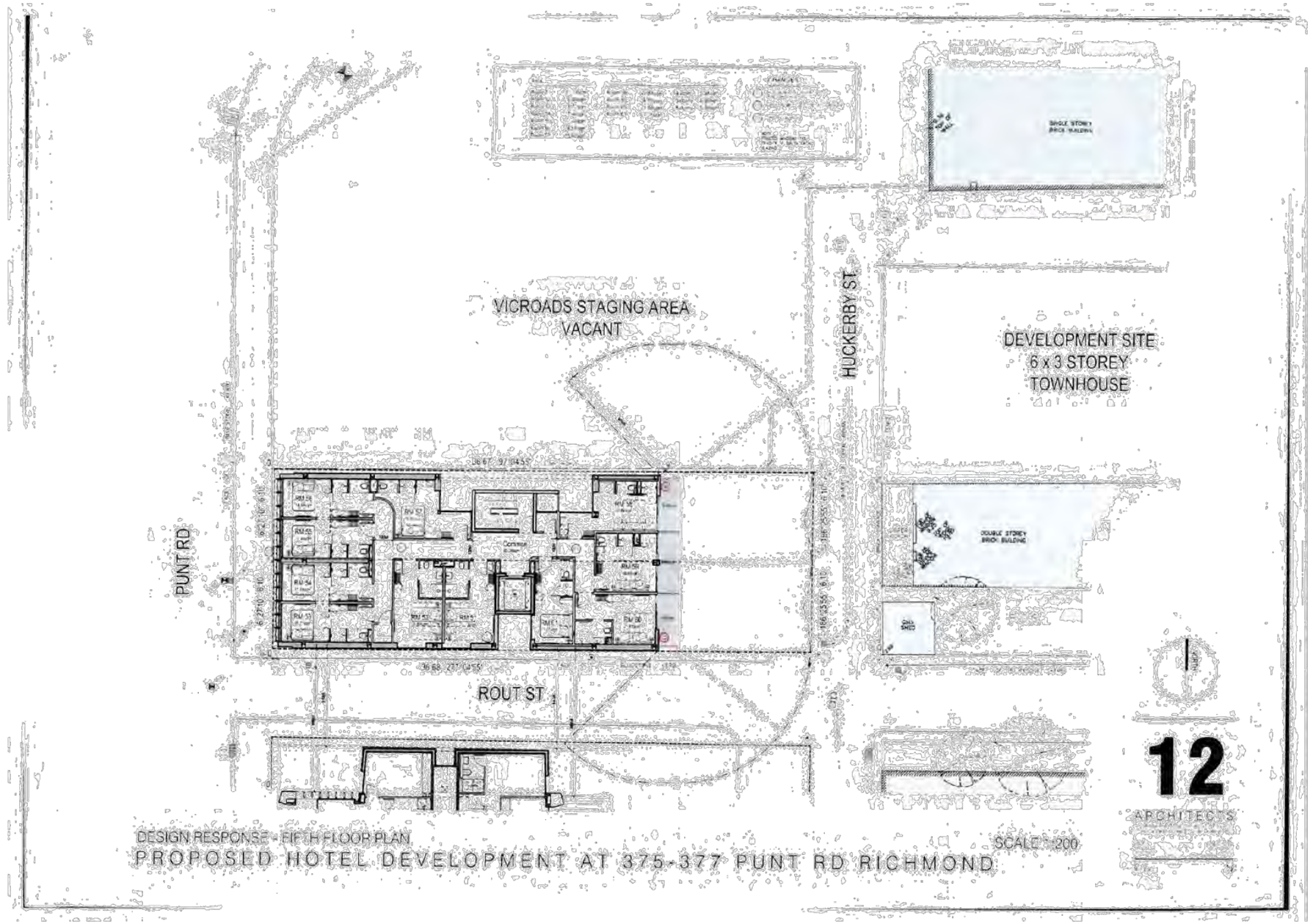

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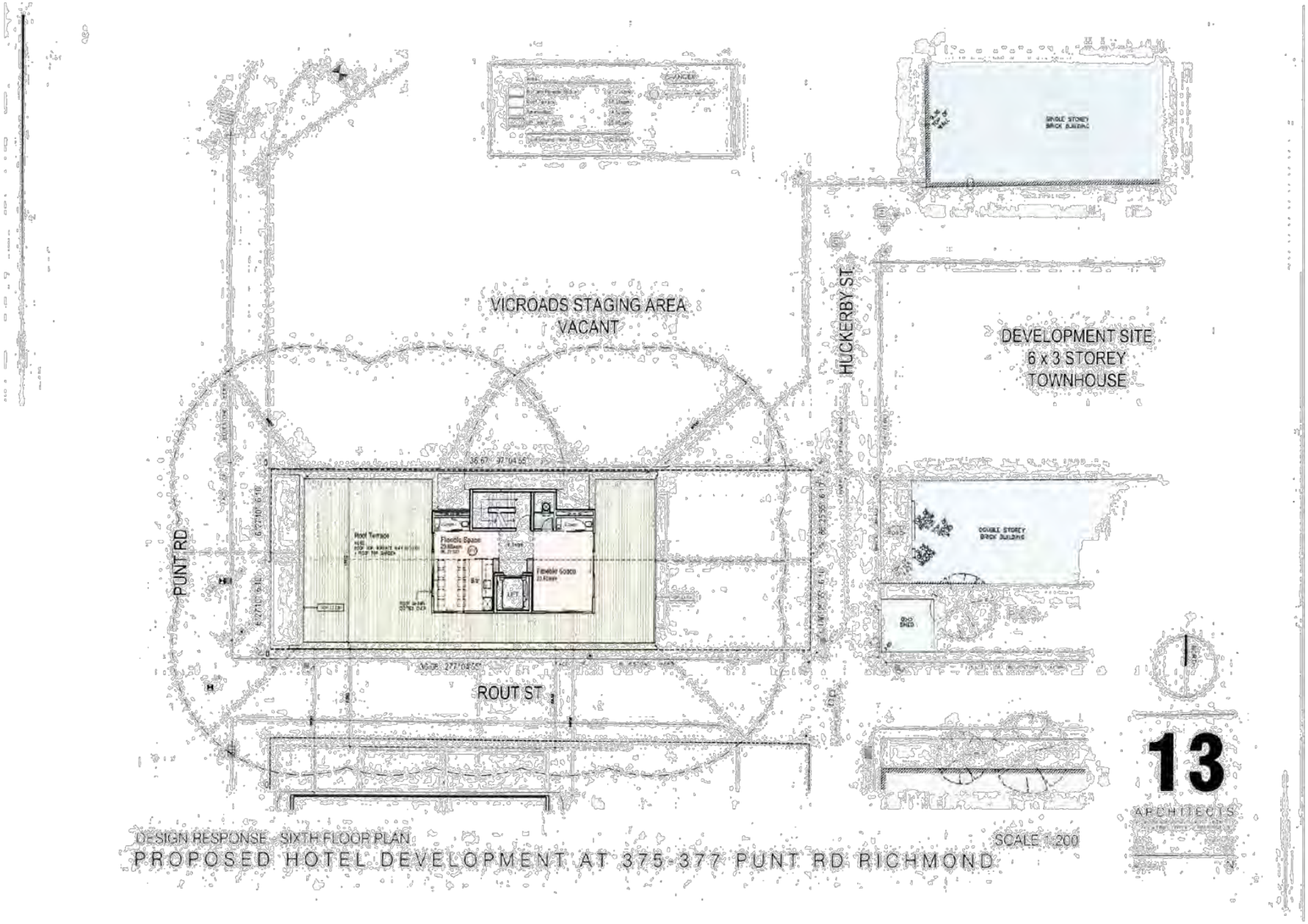

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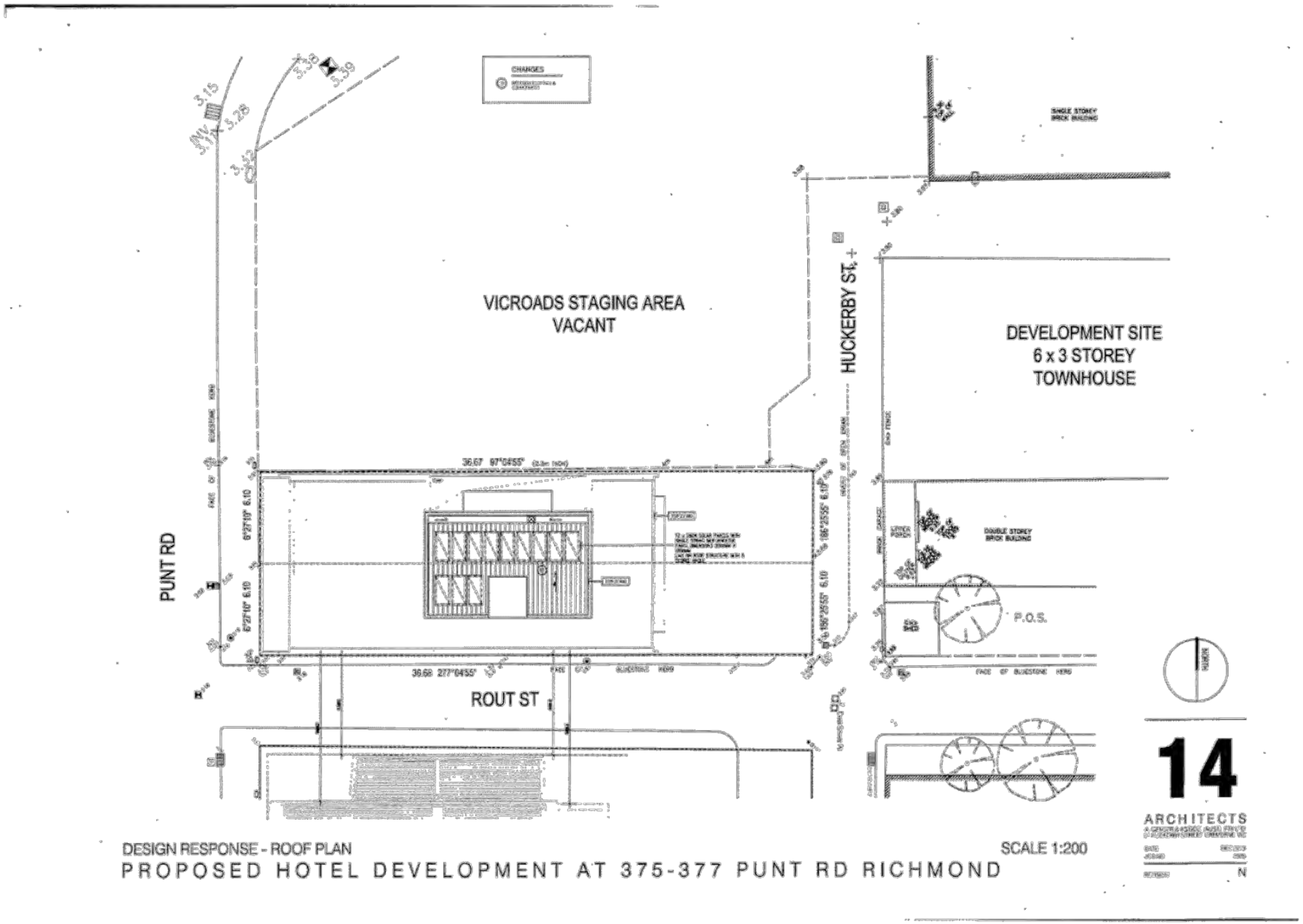

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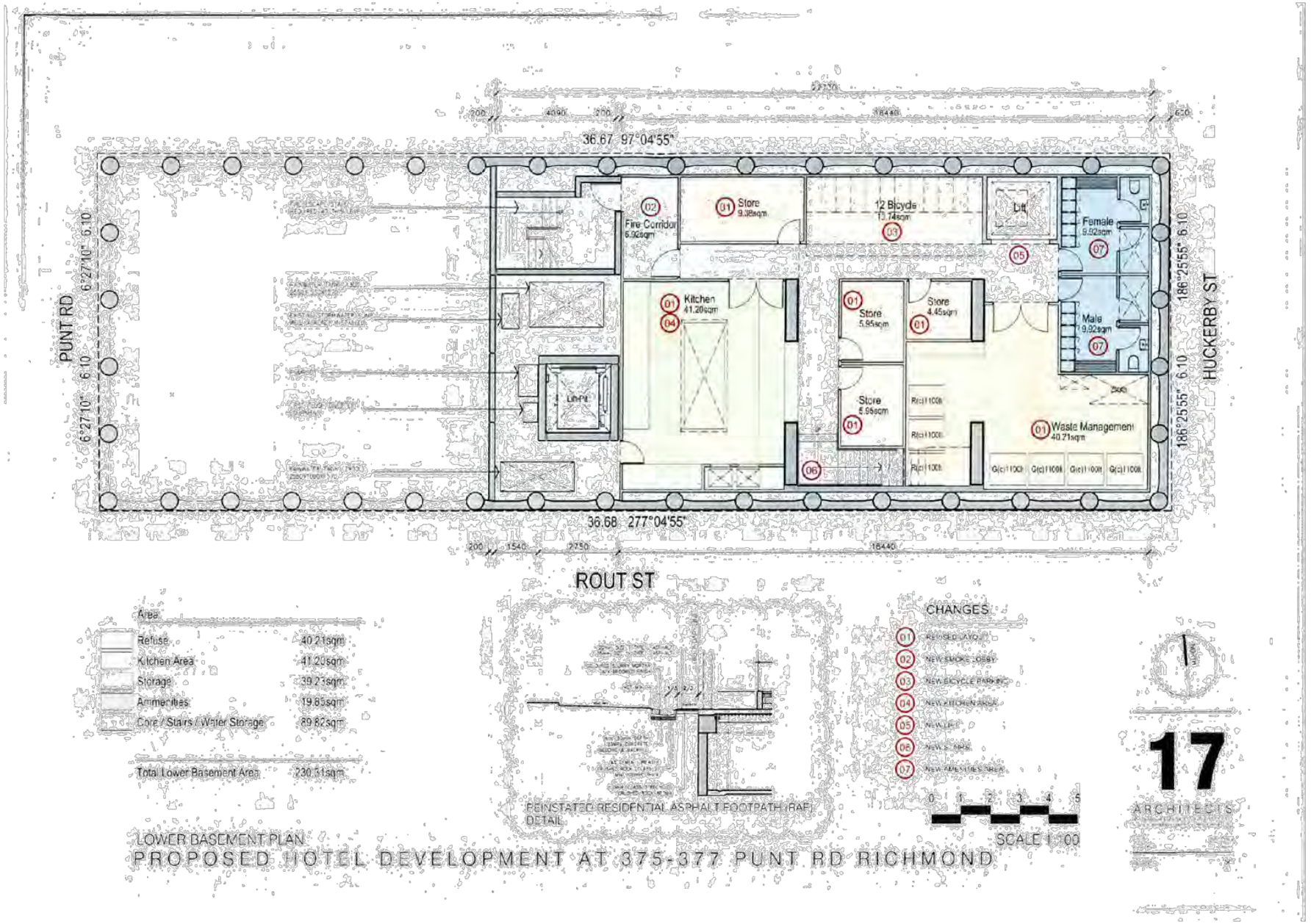

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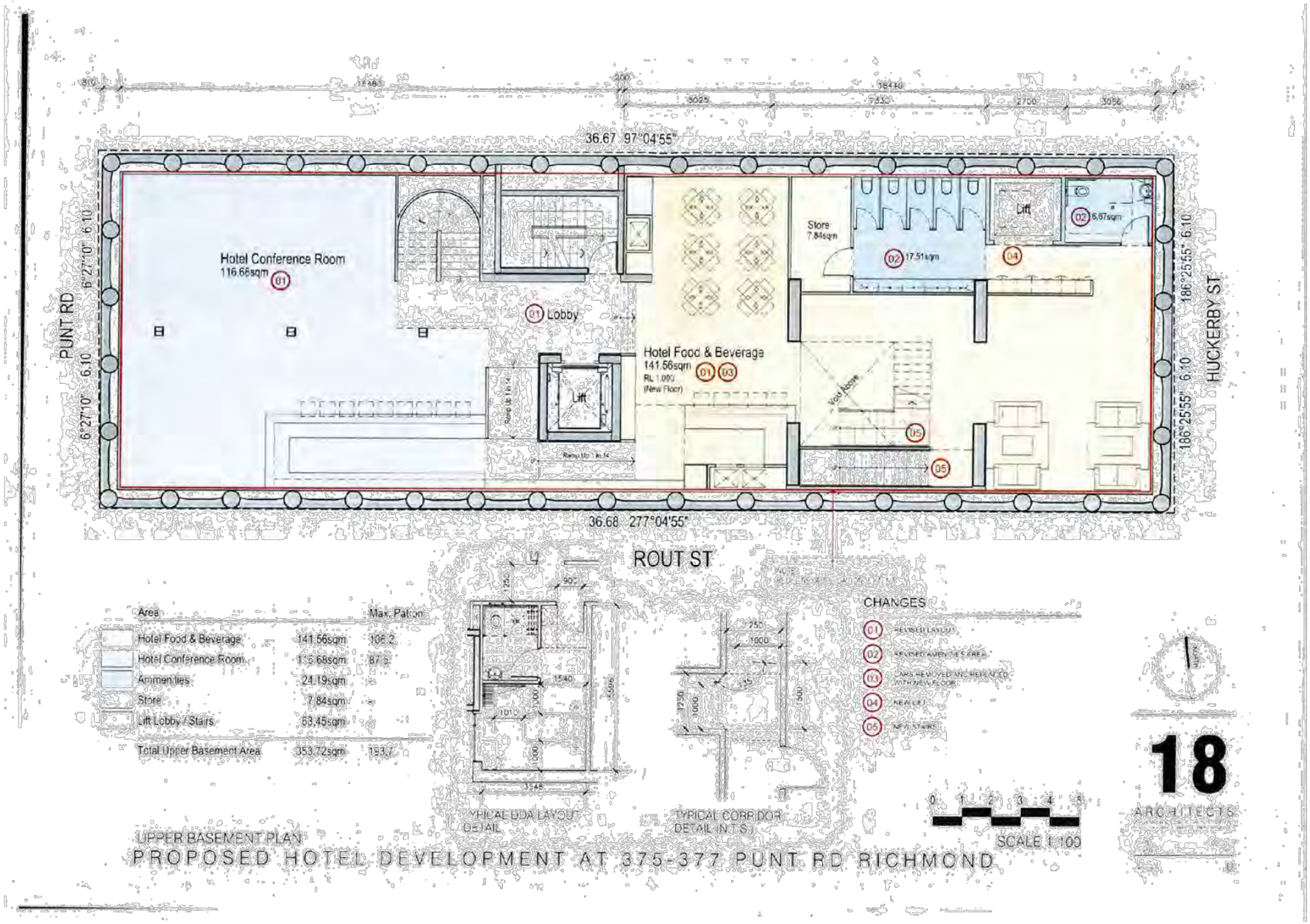

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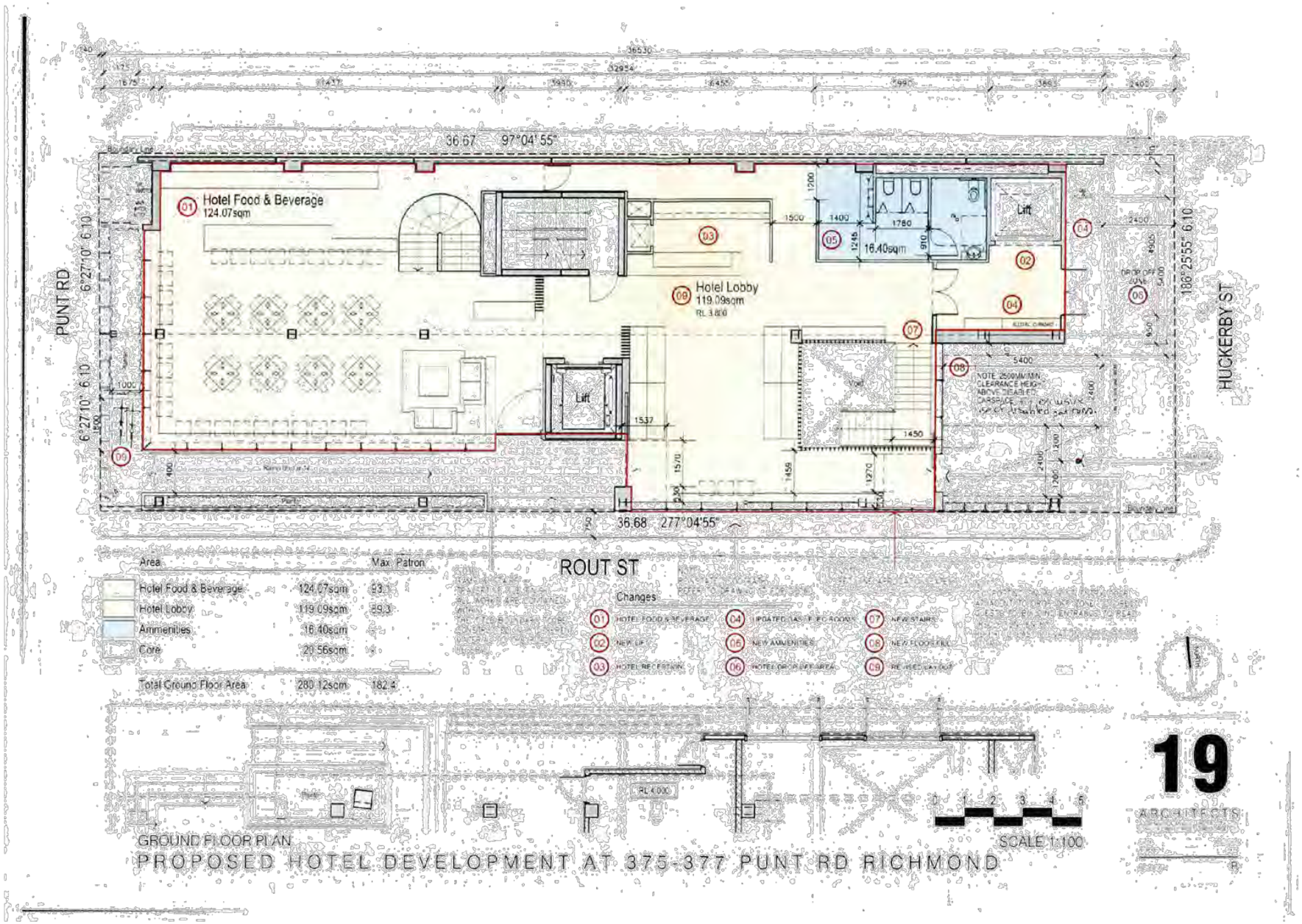

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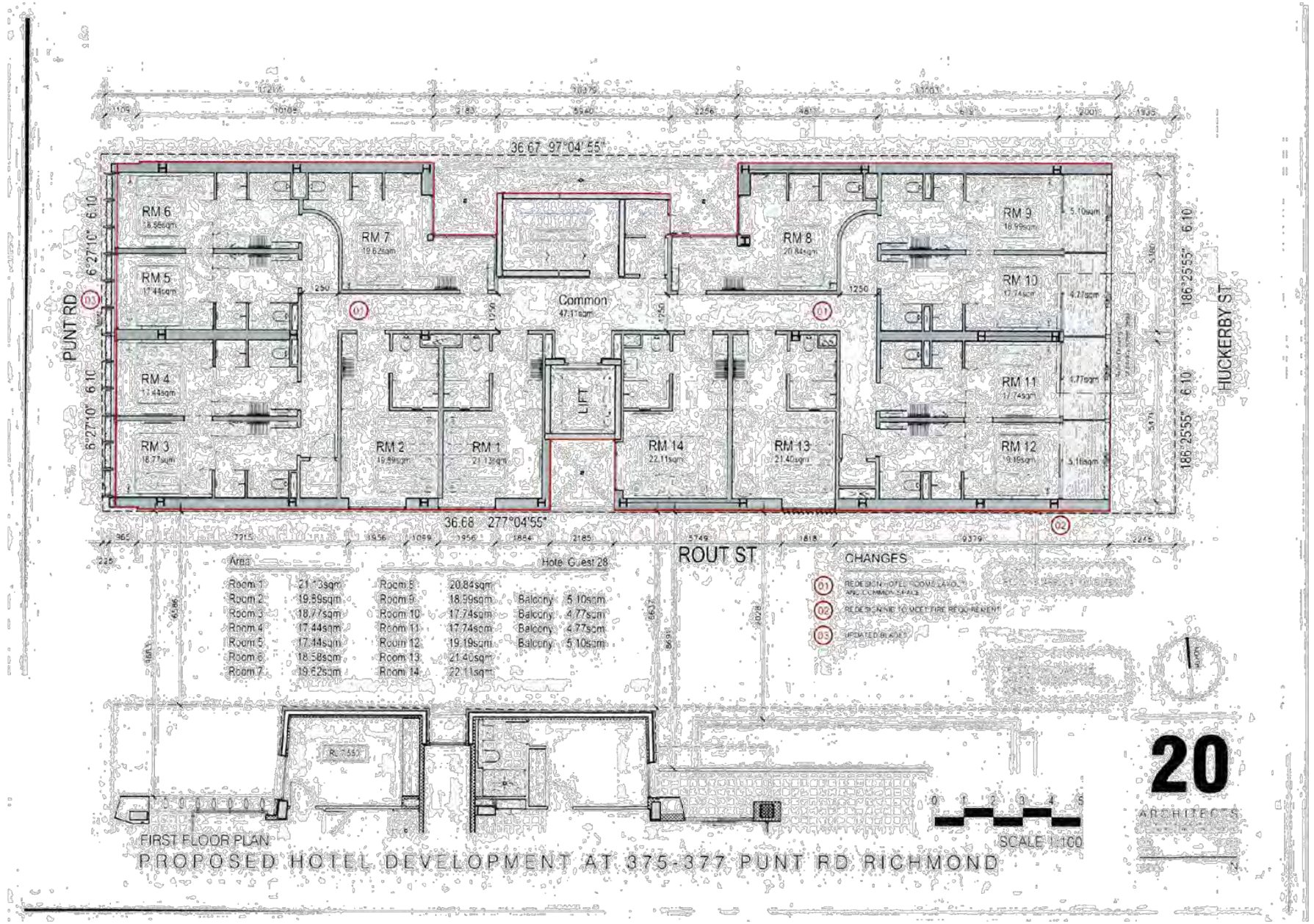

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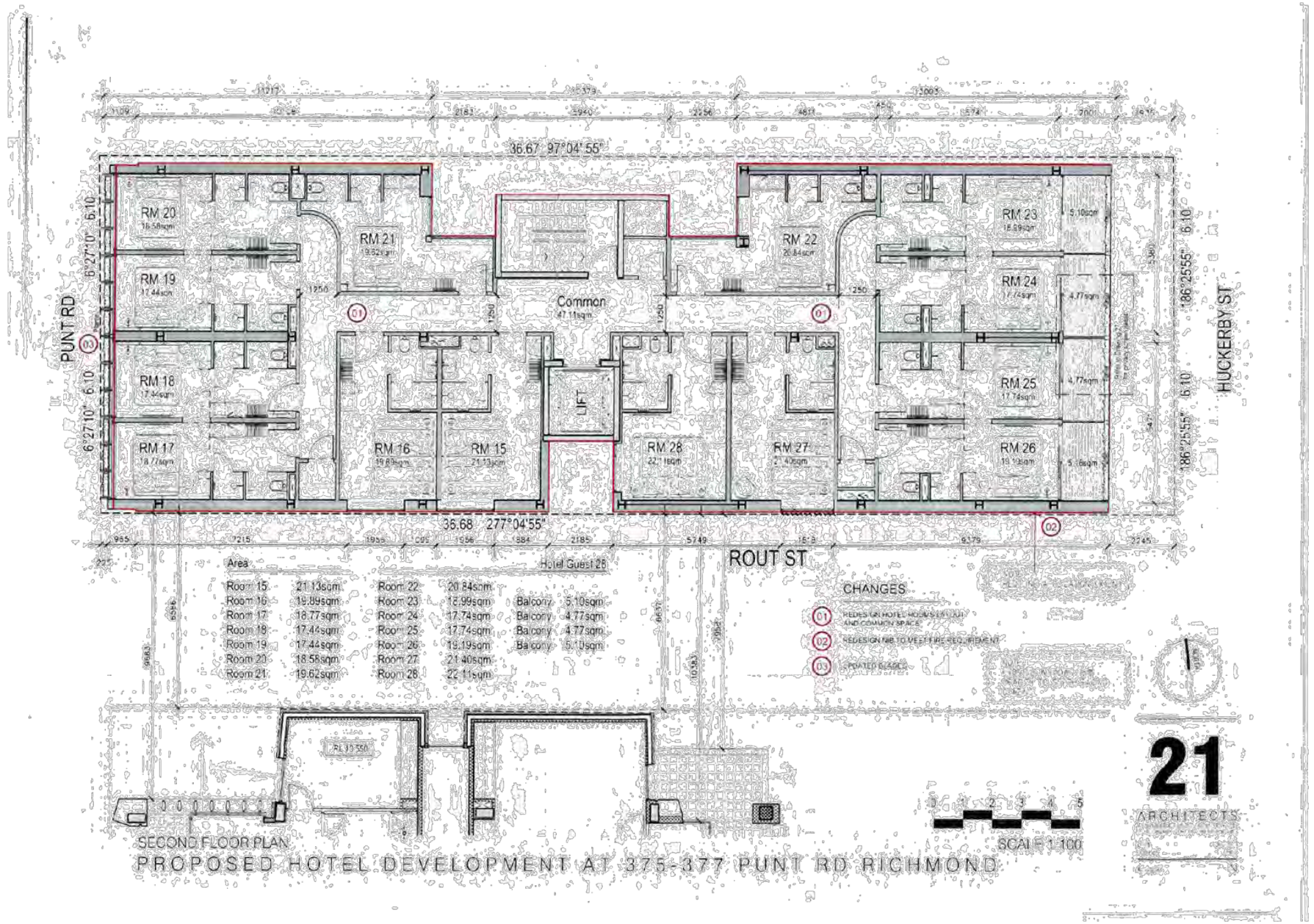

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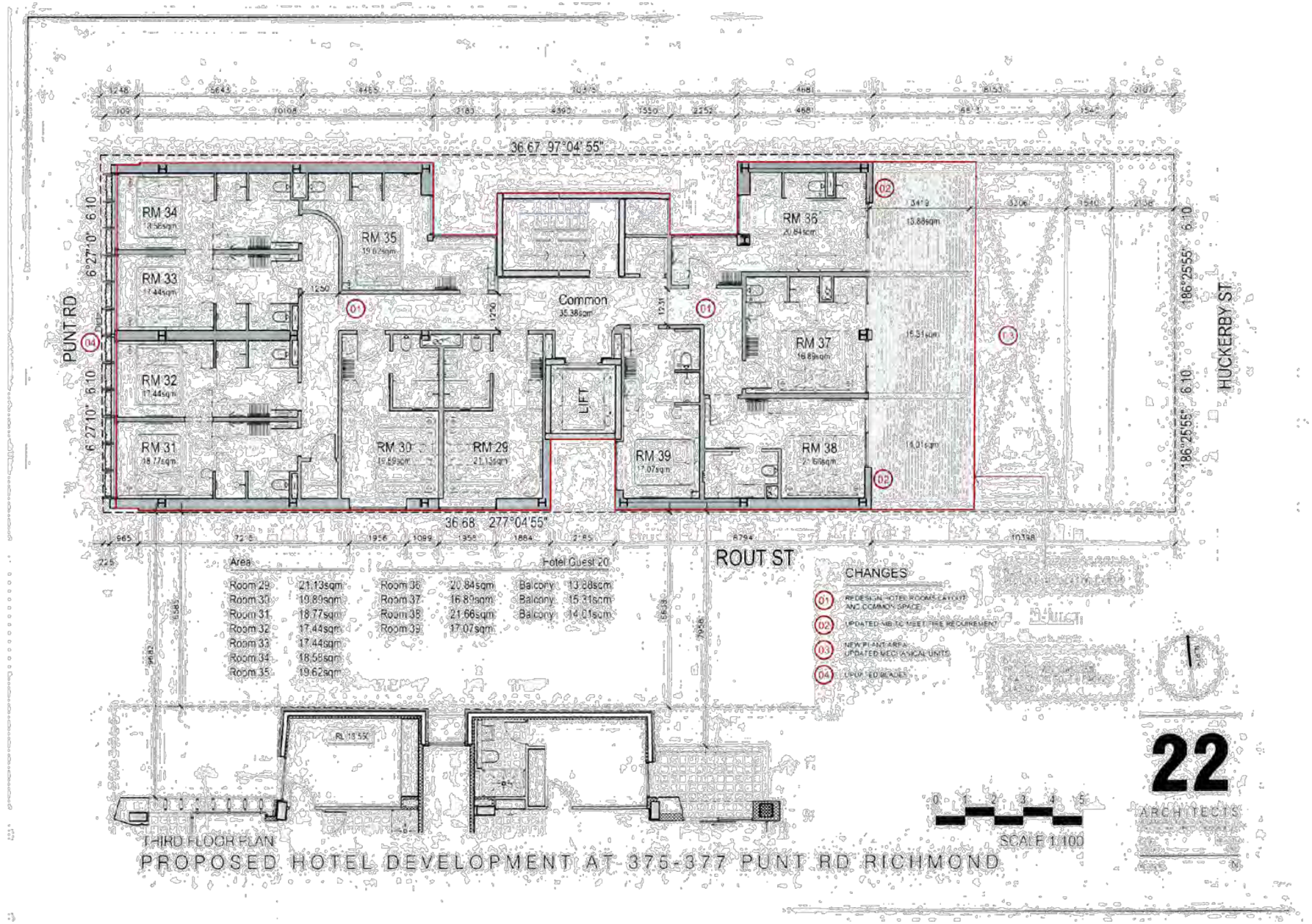
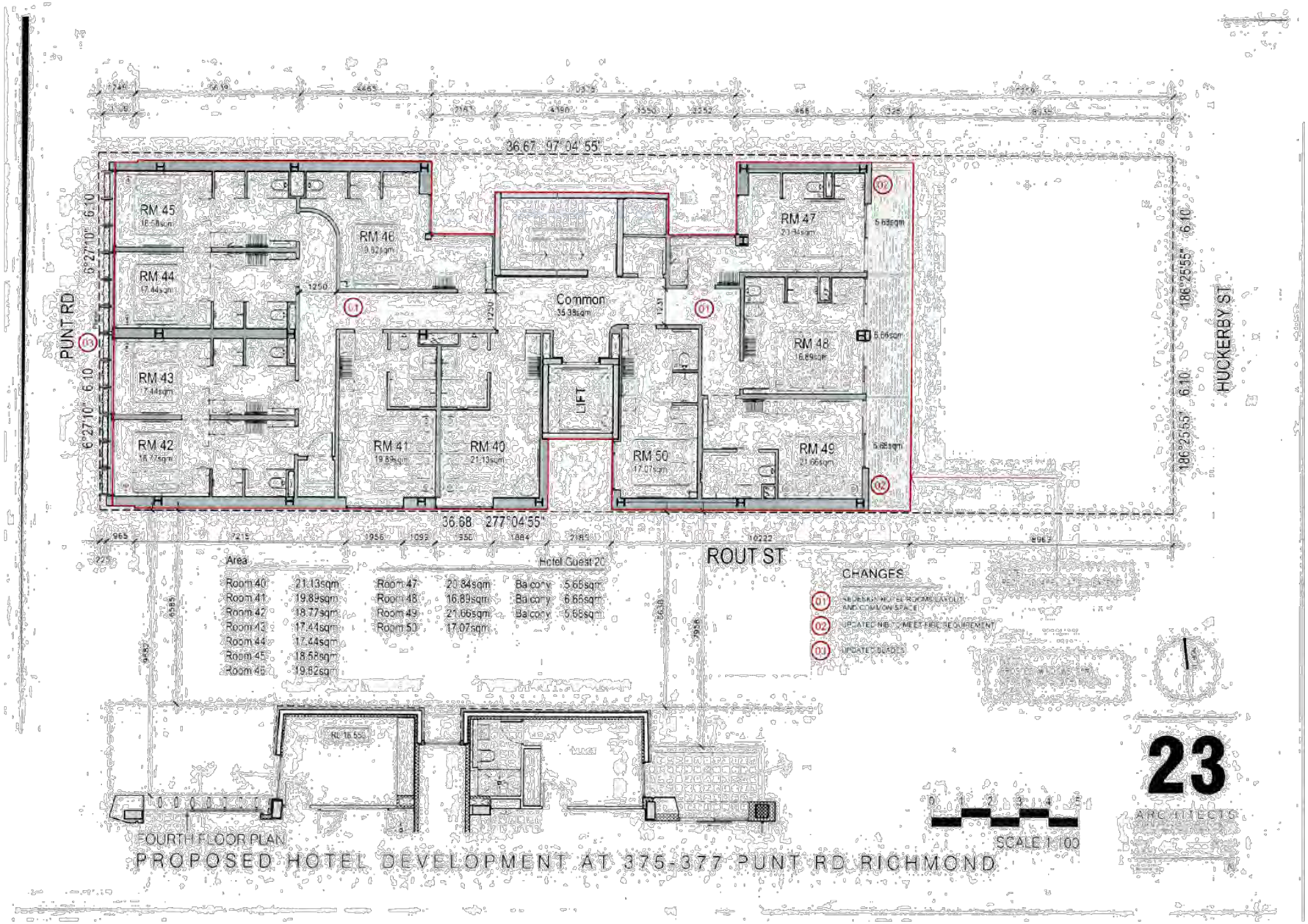


Attachment 2 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 2



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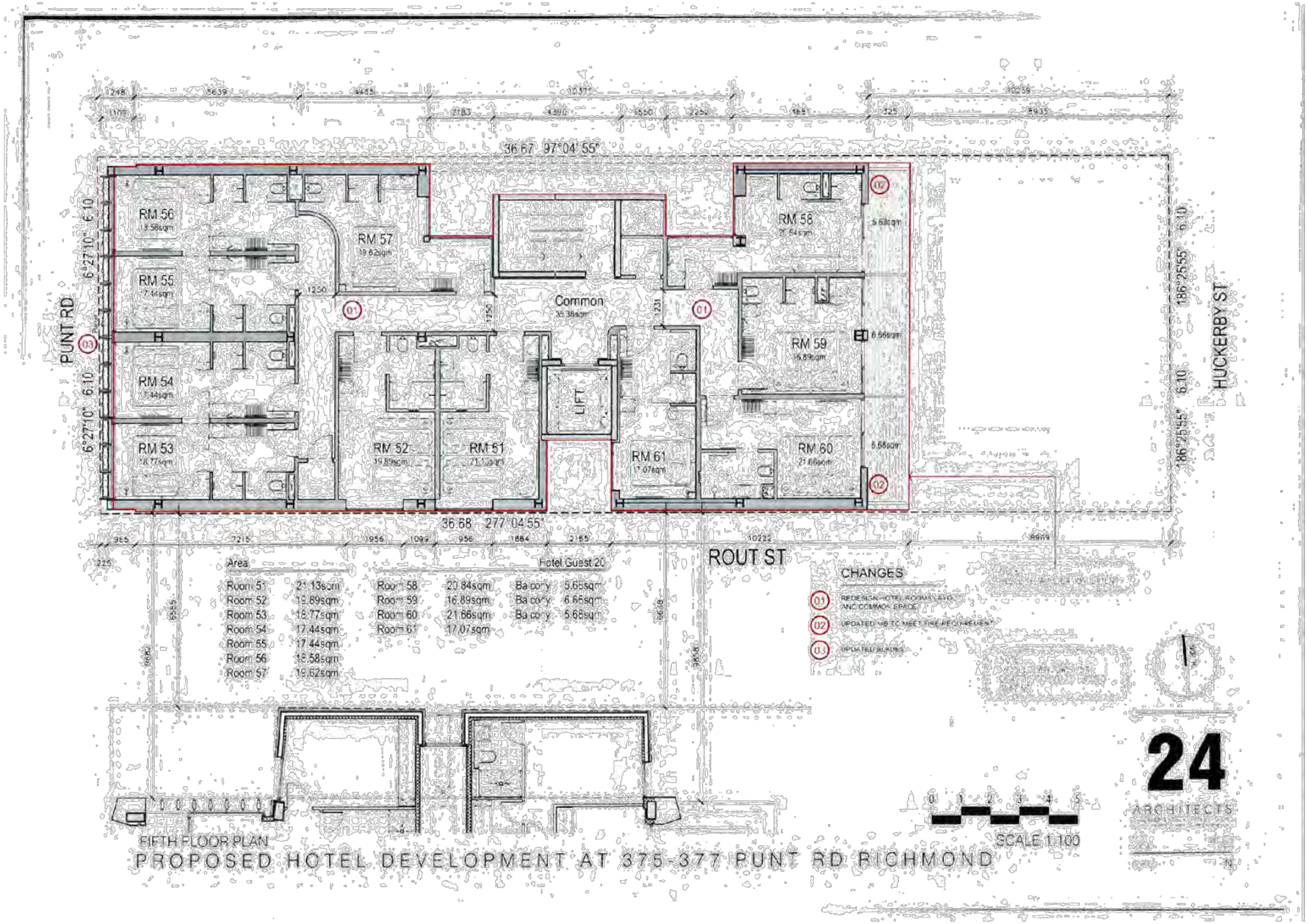

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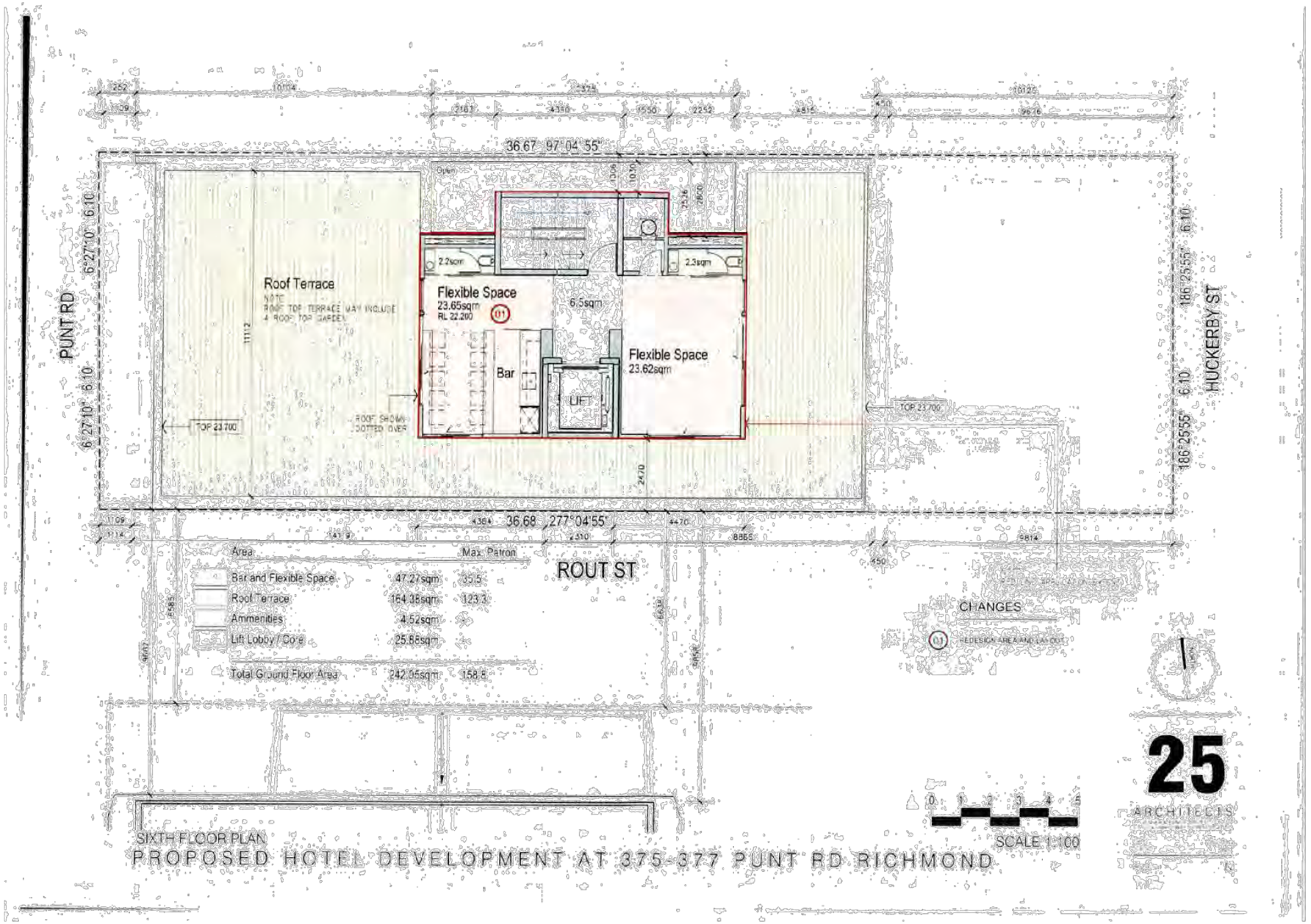

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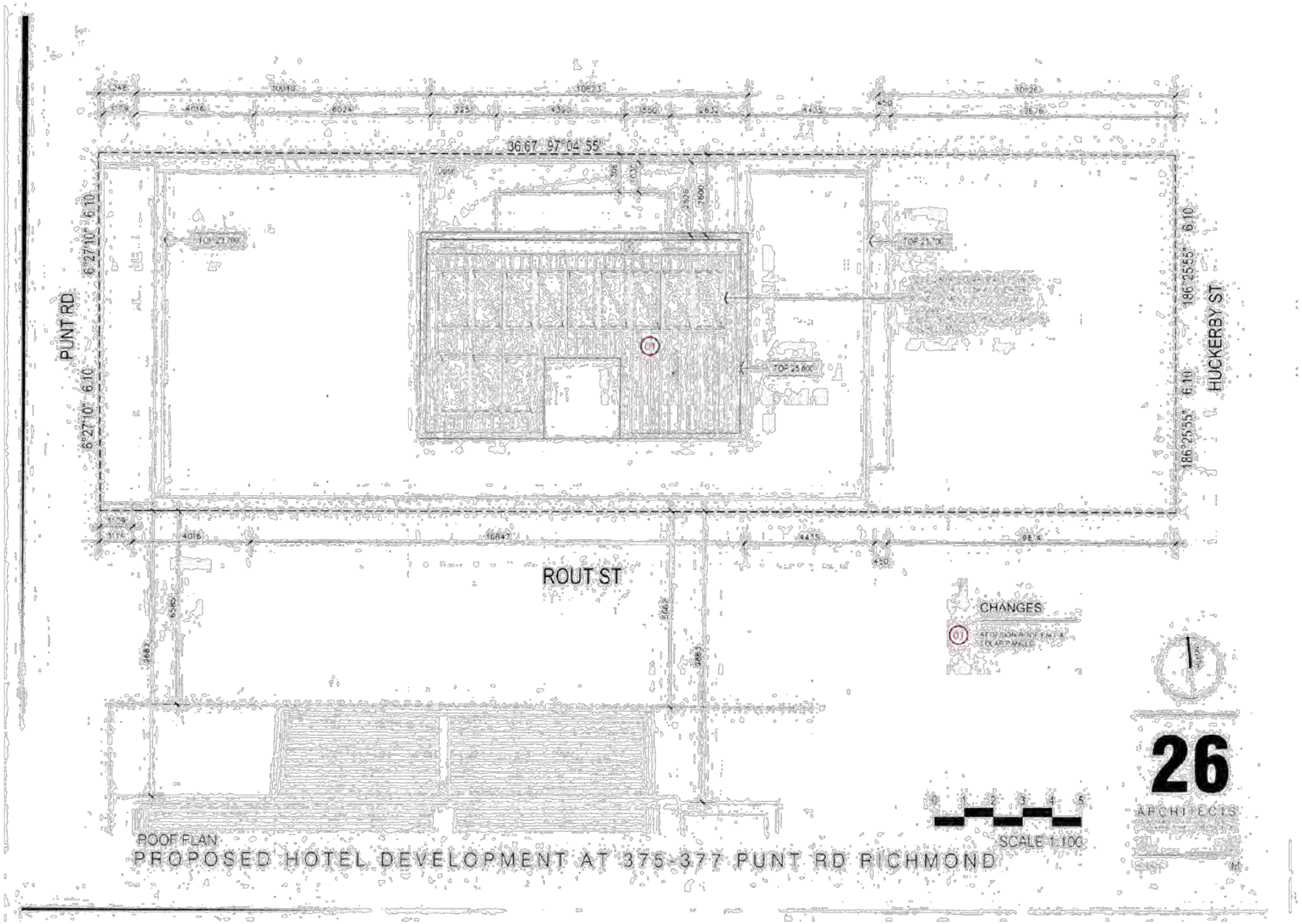

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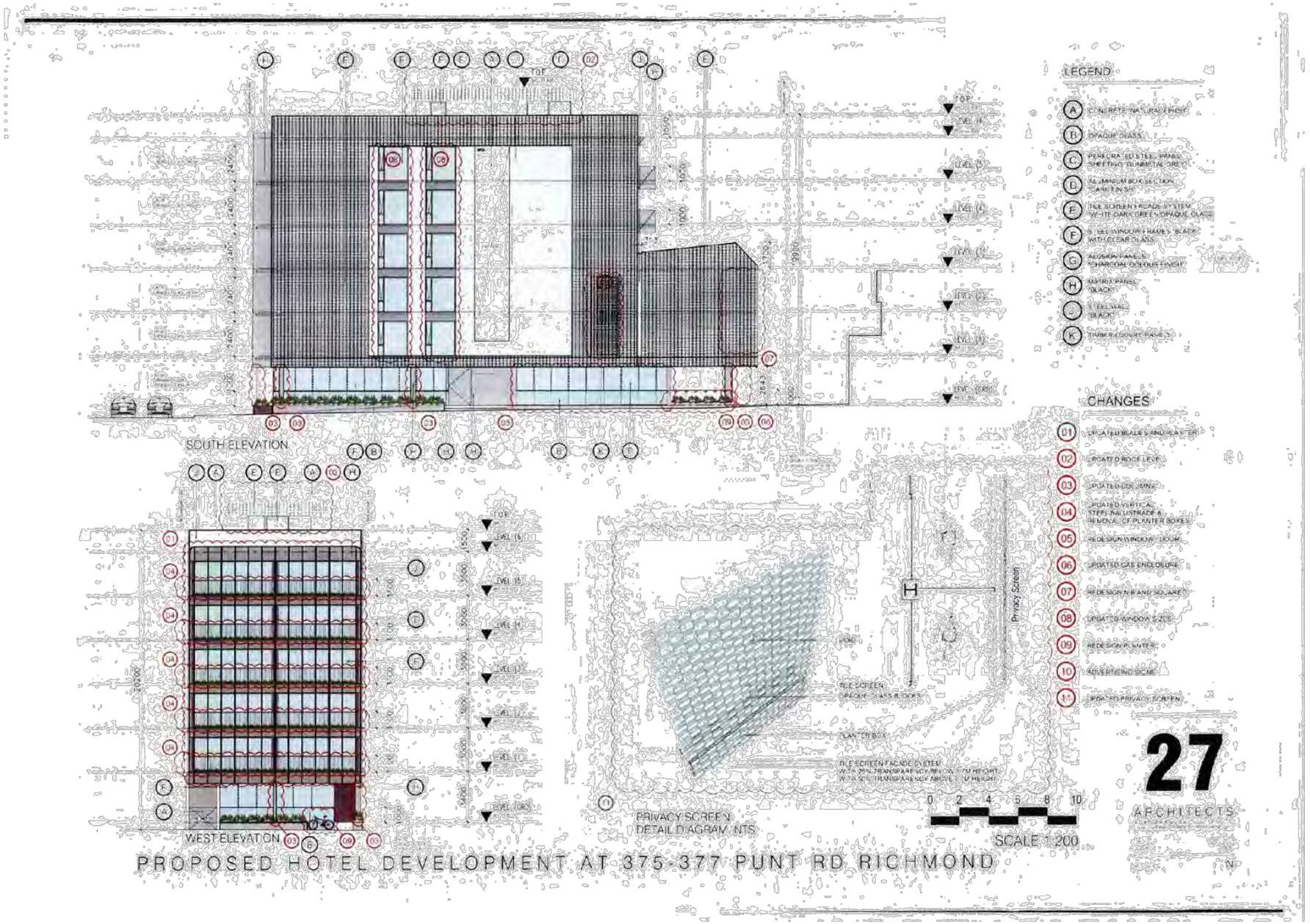

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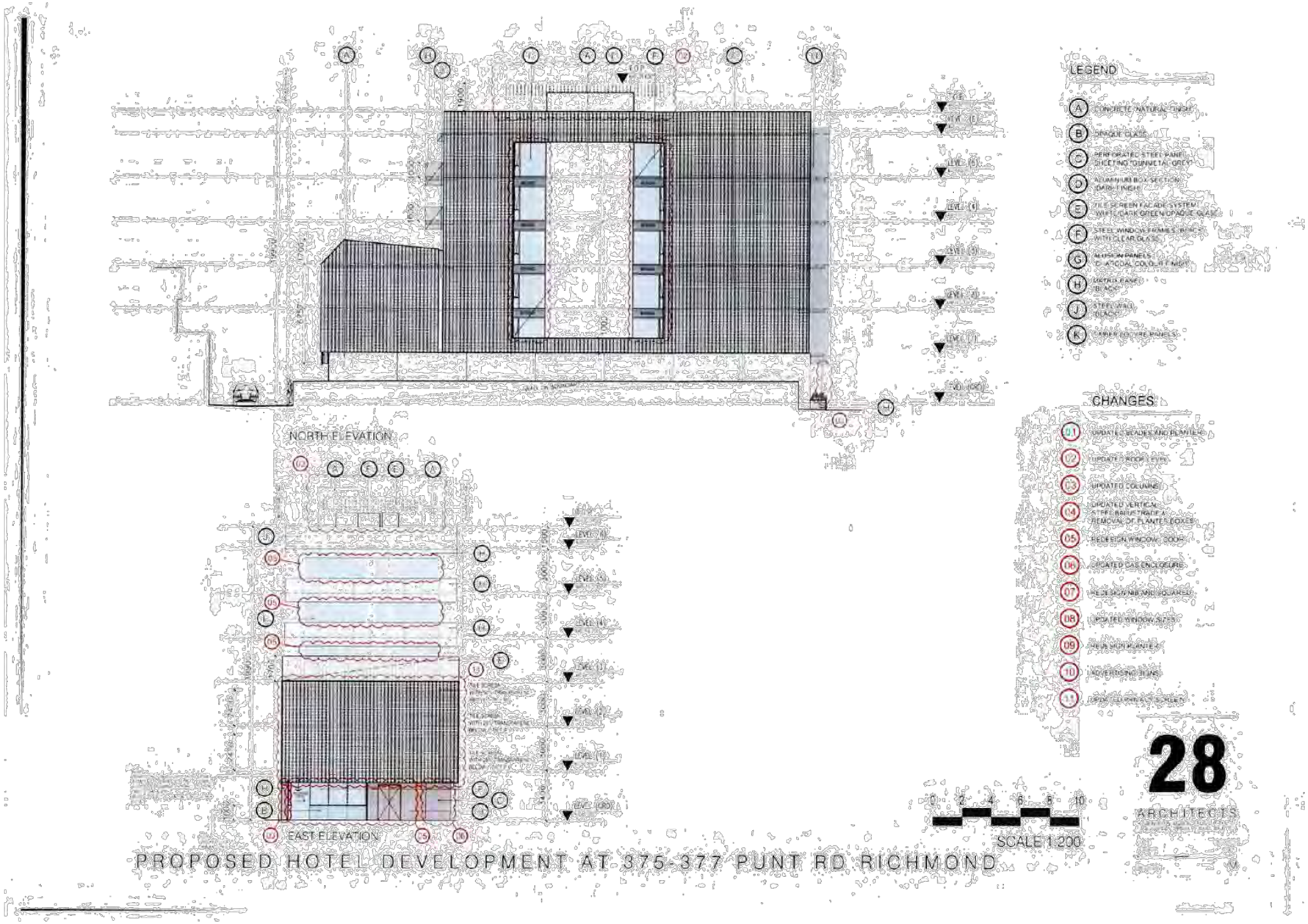

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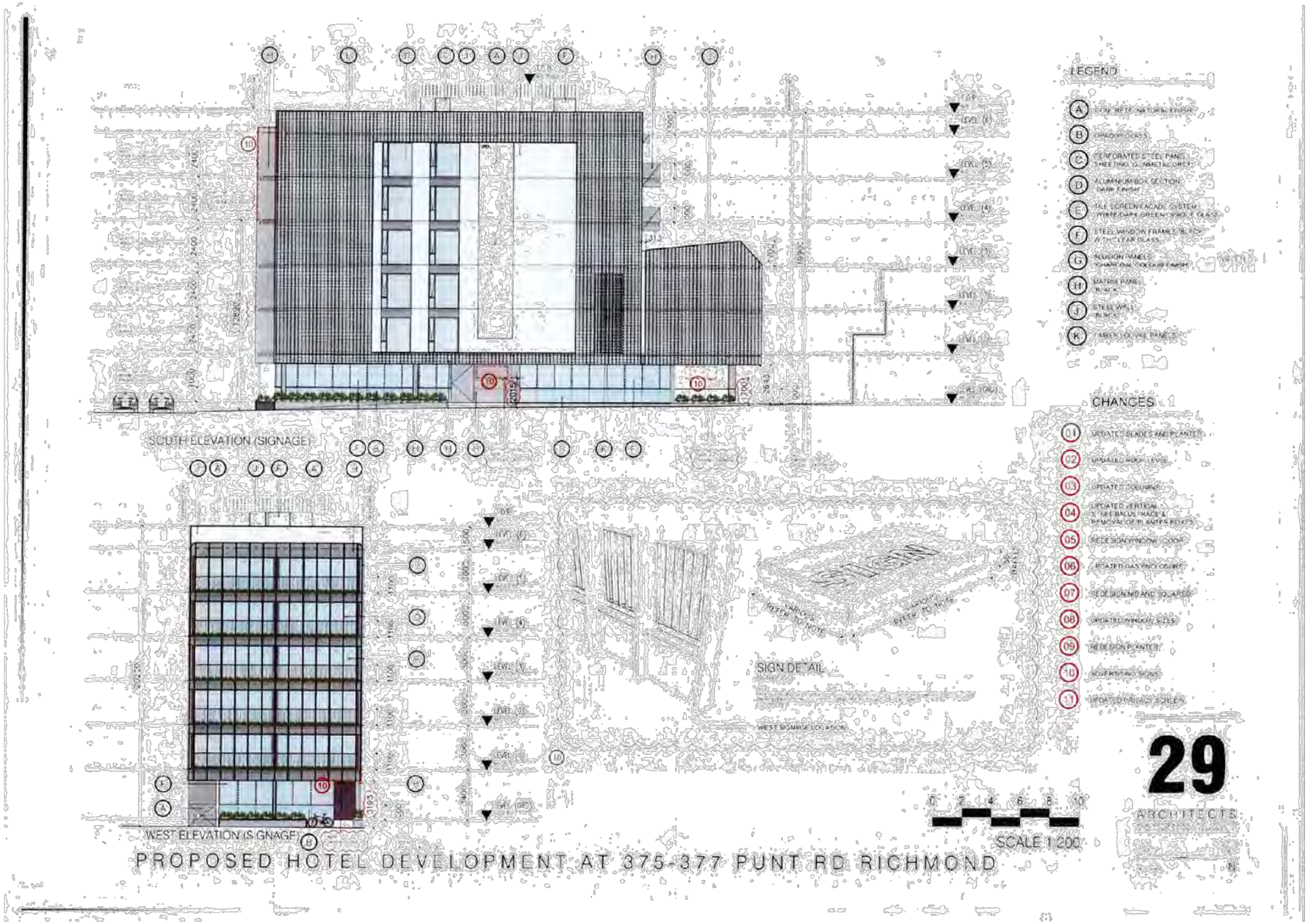

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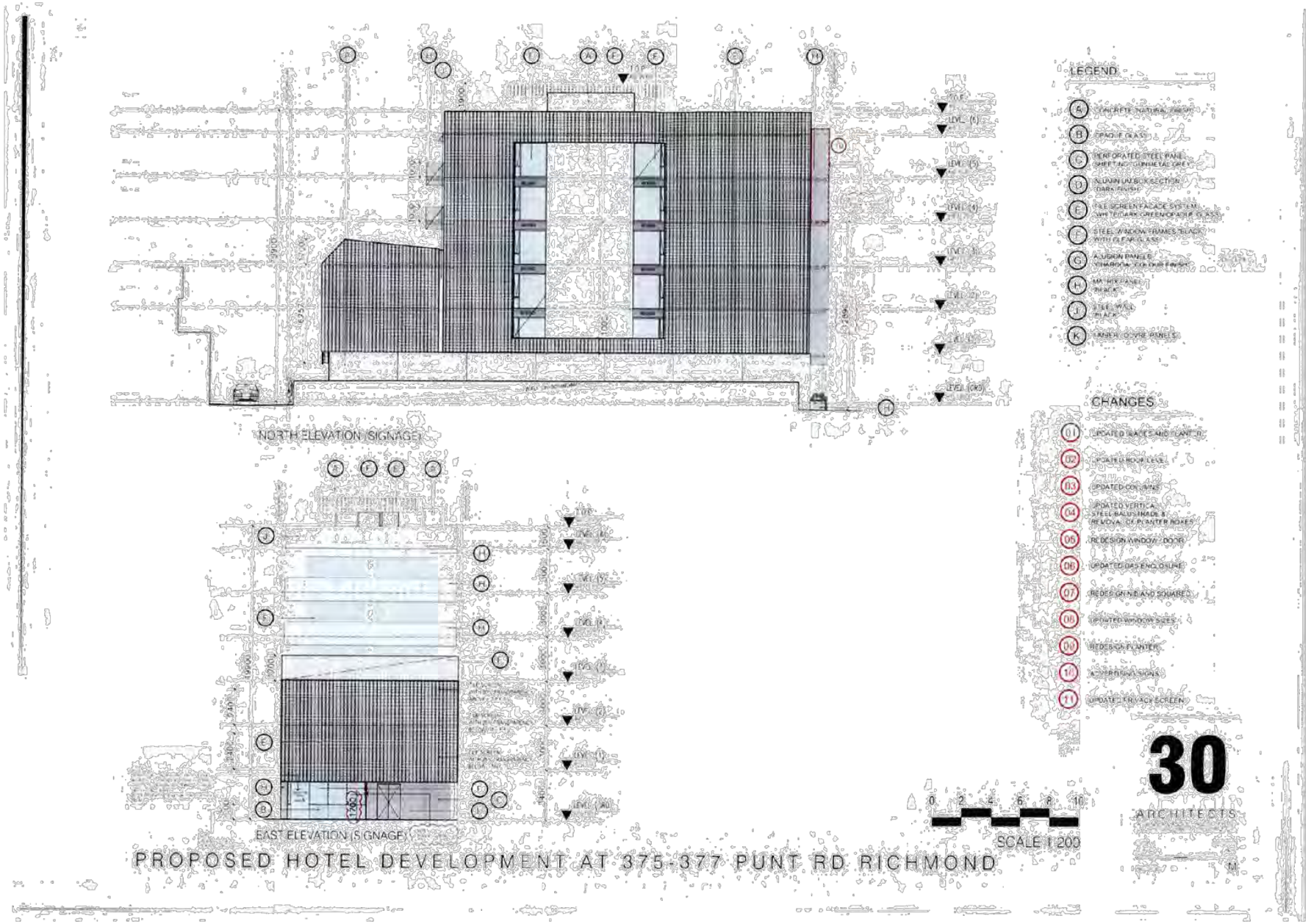


Attachment 2 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 2

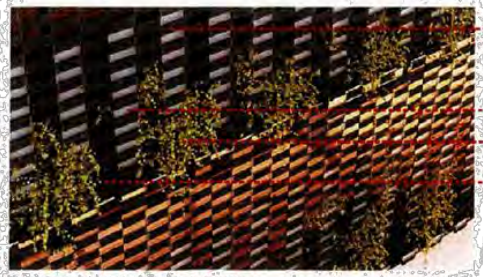
Attachment 2 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 2

REVISED NORTH-EAST FACADE

REVISED SOUTH-WEST FACADE

GROUND FLOOR SOUTH-WEST DETAIL

GROUND FLOOR SOUTH-EAST DETAIL



DETAILS OF EAST FACADE

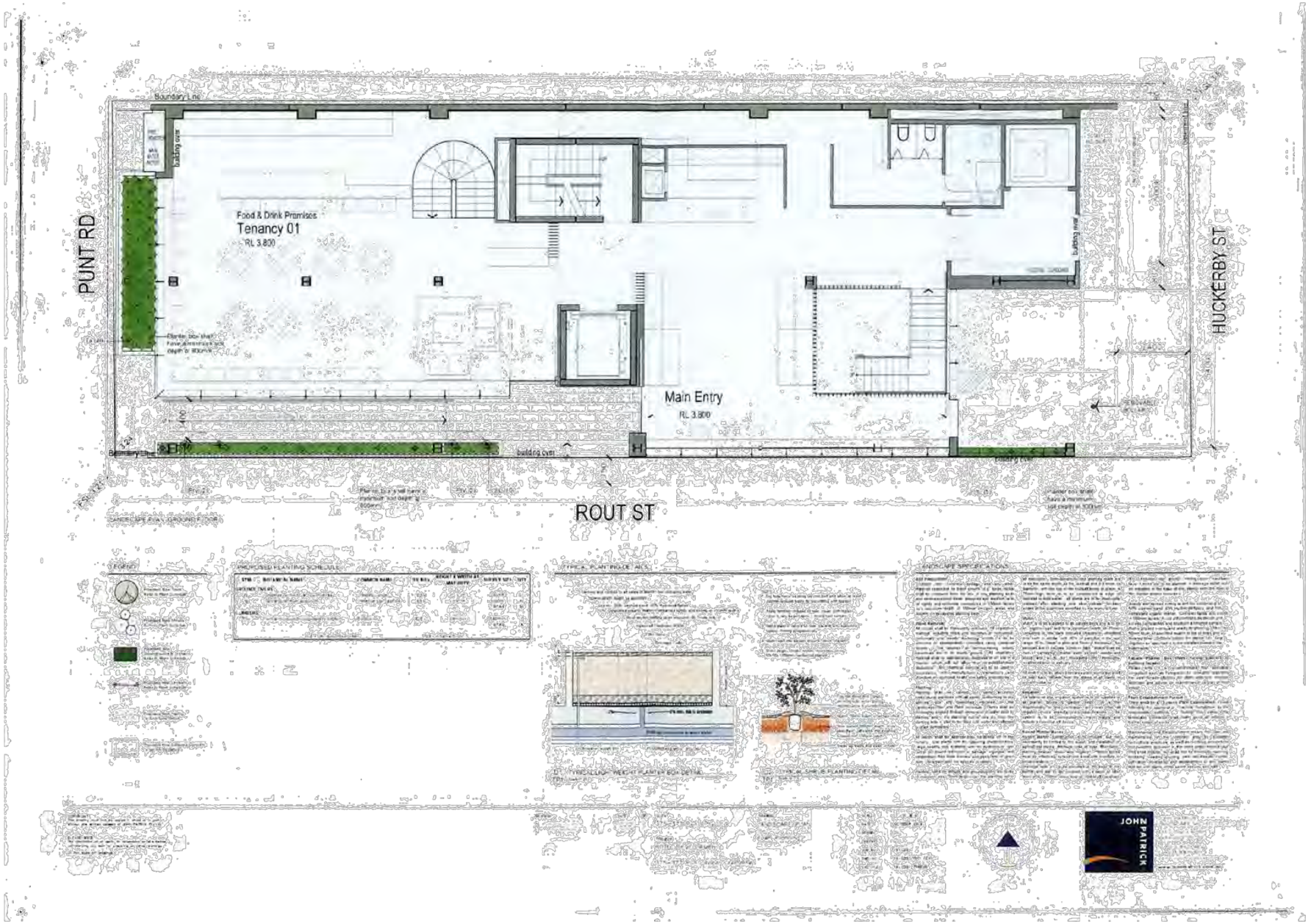
38 ARCHITECTS

FACADE IMAGES

N.T.S

PROPOSED HOTEL DEVELOPMENT AT 375-377 PUNT RD RICHMOND

Attachment 2 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 2



Attachment 2 - PLN19/0751 - 375 & 377 Punt Road - Advertised Plans Part 2

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

helping you understand your planning needs

YARRA

PLANNING PERMIT (Corrected)

Permit No: PLN14/0318

Planning Scheme: Yarra

Responsible Authority: City Of Yarra

ADDRESS OF THE LAND:

375-377 Punt Rd Cremorne VIC 3121

THE PERMIT ALLOWS:

- Buildings and works in association with the residential use of the land in the General Residential Zone (GRZ).
- Use and development of a food and drink premises (café) in a GRZ.
- Buildings and works in a Design and Development Overlay Schedule 2, a City Link Project Overlay and in a Special Building Overlay.
- Car parking dispensation pursuant to Clause 52.06.
- Dispensation from loading requirements pursuant to Clause 52.07.

in accordance with the endorsed plans.

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT:

1 Before the use and development starts, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be drawn to scale with dimensions and two copies must be provided. The plans must be generally in accordance with the plans prepared by A Genser & Associates (Australia) Pty Ltd dated September 2014 but modified to show:

(a) All works to be contained within the title boundaries (including pedestrian paths and walkways).

(b) Pedestrian paths and walkways on the southern side of the development to be constructed in different materials to the road reserve.

(c) The proposed canopy to be setback 0.75m from the bluestone open invert.

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 83 and 86

Page 1 of 10

For more information call 9205 5555 or visit www.yarracity.vic.gov.au

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

(d) Lightcourts to be constructed as per the alternative design for apartment layouts shown within Appendix C of the expert evidence of Dr Greenup dated 1 October 2014.

(e) Any requirements of the endorsed ESD report (condition 20), where relevant to show on the architectural plans.

(f) Any requirements of the endorsed acoustic report (condition 24) (where relevant to show on plans).

(g) Detailing (in a more legible manner) of the north concrete wall to include the horizontal projections and indentations as shown on the plan drawings.

(h) An increase in the height of the building by up to 1.2 metres by increasing the relevant floor to ceiling heights, at the discretion of the permit holder.

(i) An after-hours security roller grill operating in the rear stacker undercroft area, together with night-time security lighting for this area.

(j) A notation clarifying that the 'tree decoration' shown on the western elevation is not meant to be a reflection of the adjacent real trees but rather shows detailing of this elevation to be achieved (unless the Responsible Authority agrees otherwise in writing) through stencilled glass.

(k) A notation on the applicable architectural plans indicating that the roof-top area may include a roof-top garden, at the discretion of the permit holder.

(l) At the permit holder's discretion, the rear-facing privacy screens for the rear terrace areas modified to be no higher than 1.7 metres.

(m) A Schedule of Colours, Materials and Finishes.

2 The use and development as shown on the endorsed plans must not be altered (unless the Yarra Planning Scheme specifies that a permit is not required) without the prior written consent of the Responsible Authority.

3 Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, external lighting capable of illuminating the vehicular access area and pedestrian entrances must be provided. Lighting must be:

(a) located;

(b) directed;

(c) shielded; and

(d) of limited intensity,

to the satisfaction of the Responsible Authority.

Melbourne Water Conditions (4 and 5)

4 Finished floor levels of the ground floor must be constructed at a minimum of 3.73 metres to Australian Height Datum (AHD). The applicable flood level for the property is 3.43 metres to AHD.

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 66

Page 2 of 10

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

5 All doors, windows, vents and openings to the basement car park must be a minimum of 300mm above the applicable flood level.

VicRoads Conditions (6 to 8)

6 Prior to the endorsement of any development plans, an Engineering Report from a suitably qualified engineer outlining the design, management and construction techniques to be implemented prior, during and following excavation to prevent any impact on the City Link/Burnley tunnel and Emergency Egress tunnel is to be submitted to VicRoads for approval. Once approved, the Engineering Report will form part of the planning permit. Without limiting the scope of the report, it must consider all structural and geotechnical issues and it must demonstrate the following:

(a) that the building footings (and overall development including rainwater tanks) will not compromise the structural integrity of the City Link/Burnley tunnel and Emergency Egress tunnel;

(b) that the method of excavation and construction of the proposed basement and footings does not cause the ground-water table to be drawn down during construction;

(c) any hold points requiring VicRoads' inspection and approval prior to releasing the hold points;

(d) that the basement will not cause permanent draw down impacting the ground-water table; and

(e) that the basement will be suitably protected from any ground water ingress.

7 Before the development starts, detailed design drawings must be submitted to and approved by VicRoads. When approved by VicRoads, the drawings may be endorsed by the Responsible Authority and will then form part of the permit. The drawings must be drawn to scale with dimensions and three copies must be provided. The drawings must be generally in accordance with the amended plans received by VicRoads on 8 September 2014, Drawings numbered 05 to 36, Revision B but modified to show:

(a) all excavation and footing details must accord with the approved Engineering Report described at condition 1 above ;

(b) excavation depths to be shown at Australian Height Datum (AHD);

(c) all sub surface basement stacker levels be shown at AHD on floor plans (Drawing numbers 16,17,18 and 19 Revision B) and elevation plans (Drawing numbers 15 and 28, Revision B).

8 All design, excavation and construction must accord with the approved Engineering Report described at condition 7 above and the endorsed drawings.

Food and drinks premises (café) use

9 The permitted use of food and drinks premises (café) may operate only between the hours of 7.00 am and 8.00 pm – Monday to Sunday, unless with the prior written consent of the Responsible Authority.

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

10 No more than 50 patrons are to be permitted on the food and drink premises (café) premises at any time unless with the prior written consent of the Responsible Authority.

11 The amenity of the area must not be detrimentally affected by the café use, including through:

(a) the transport of materials, goods or commodities to or from land;

(b) the appearance of any buildings, works or materials;

(c) the emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil; or

(d) the presence of vermin,

to the satisfaction of the Responsible Authority.

12 The use must comply at all times with the State Environment Protection Policy – Control of Noise from Commerce, Industry and Trade (SEPP N-1).

13 The use must comply at all times with the State Environment Protection Policy – Control of Music Noise from Public Premises (SEPP N-2).

14 Except with the prior written consent of the Responsible Authority, the provision of music and entertainment on the food and drink premises (café) premises must be at a background noise level.

15 Except with the prior written consent of the Responsible Authority, speakers external to the building must not be erected or used.

16 Except with the prior written consent of the Responsible Authority, the emptying of bottles and cans into bins must not occur:

(a) before 7 am or after 6 pm, Monday-Friday (excluding public holidays);

(b) before 9 am or after 3 pm, Saturdays and public holidays (other than ANZAC Day, Christmas Day and Good Friday); or

(c) at any time on Sundays, ANZAC Day, Christmas Day and Good Friday.

17 All waste associated with the food and drink premises (café) must be collected by private collection, unless with the prior written consent of the Responsible Authority.

Landscape Plan

18 Before the development commences, a Landscape Plan prepared to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Landscape Plan will be endorsed and will form part of this permit. The Landscape Plan must:

(a) show the type, location, quantity, height at maturity and botanical names of all proposed plants;

(b) indicate the location of all areas to be covered by lawn or other surface materials;

(c) (if the permit holder elects that the roof top area will include a roof top garden) provide the details of the roof top garden area in accordance with sub-clauses (a) and (b) above.

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 86

Page 4 of 10

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

(d) provide a specification of works to be undertaken prior to planting

to the satisfaction of the Responsible Authority.

19 Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, the landscaping works shown on the endorsed Landscape Plan must be carried out and completed to the satisfaction of the Responsible Authority. The landscaping shown on the endorsed Landscape Plan must be maintained by:

(a) implementing and complying with the provisions, recommendations and requirements of the endorsed Landscape Plan;

(b) not using the areas set aside on the endorsed Landscape Plan for landscaping for any other purpose; and

(c) replacing any dead, diseased, dying or damaged plants,

to the satisfaction of the Responsible Authority.

ESD

20 Before the development commences, an amended Sustainable Management Plan prepared to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Sustainable Management Plan will be endorsed and will form part of this permit. The amended Sustainable Management Plan must be generally in accordance with the Sustainable Management Plan prepared by Wood and Grieve Engineers submitted to the Responsible Authority on 16 July 2014, but modified to include or show:

(a) Lightcourts to exceed minimum BCA/NCC standards as per the alternative design for apartment layouts shown within Appendix the expert evidence of Dr Greenup dated 1 October 2014;

(b) A STORM score to the satisfaction of the Responsible Authority and for the rainwater tank size to have a minimum tank reliability of 80% in STORM;

(c) The size and location of the water tank on the plans and which apartments will be connected to rainwater for flushing;

(d) Provide a sample NatHERS report to demonstrate a 10% improvement in thermal performance of the building shell is achieved;

(e) Provide at least one secure bike parking space per apartment plus two additional space for café staff and visitors;

(f) End of trip facilities (a shower and lockers) to be provided in food and drink premises (café) amenities areas;

(g) Operable windows and mixed mode ventilation to be installed for common areas and where natural ventilation for corridor;

(h) Dual waste chutes for recycling and general waste with kitchen joinery to have separate recycling compartments;

(i) The areas for general waste and recycling bins to be clearly labelled;

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 86

Page 5 of 10

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

(j) The achievement of Council's Best Practice Standard for energy efficiency;

(k) A high efficiency hot water system to be installed and to include solar preheat collectors with a minimum of 45% contribution to annual energy requirements;

(l) The installation of flexible shading device to the eastern and western facades;

(m) All residential AC systems efficiency to be within one star of the highest available;

(n) A solar photovoltaic system to be installed on the roof for common area energy demand;

(o) Individual water meters to be installed to apartments; and

(p) A Building Users Guide to be produced and provided to residents and staff clearly indicating strategies for efficient operation of all building services.

21 The provisions, recommendations and requirements of the endorsed Sustainable Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Waste Management

22 Before the development commences, a Waste Management Plan prepared to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. Once approved, the Waste Management Plan will be endorsed and will form part of this permit.

23 The provisions, recommendations and requirements of the endorsed Waste Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Acoustic

24 Before the development commences, an Acoustic Report prepared to the satisfaction of the Responsible Authority by a suitably qualified acoustic engineer and must be submitted to and approved by the Responsible Authority. When approved, the Acoustic Report will be endorsed and will form part of this permit. The Acoustic Report must:

(a) assess the noise impact to dwelling occupants from surrounding commercial uses, vehicular and train noise as well as internal noise sources within the development and noise to neighbouring properties from plant and equipment;

(b) make recommendations to limit the noise impacts in relation to noise emitted from mechanical equipment and plant in the building approved by this permit, in accordance with the *AS 2107-2000 Acoustics - Recommended design sound levels and reverberation times for building interiors*, to the satisfaction of the Responsible Authority;

(c) make recommendations to limit the noise impacts with respect to noise emitted from road traffic along Punt Road and surrounds, in accordance with and *AS 3671 – 1989 Acoustics – Road traffic noise intrusion – Building siting and construction*, to the satisfaction of the Responsible Authority.

25 The provisions, recommendations and requirements of the endorsed Acoustic Report must be implemented and complied with to the satisfaction of the Responsible Authority.

26 The development must comply at all times with the State Environment Protection Policy – Control of Noise from Commerce, Industry and Trade (SEPP N-1).

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 86

Page 6 of 10

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

Car Parking

27 Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, the area set aside on the endorsed plans for the car parking spaces, access lanes and associated works must be:

(a) constructed and available for use in accordance with the endorsed plans;

(b) formed to such levels and drained so that they can be used in accordance with the endorsed plans; and

(c) treated with an all-weather seal or some other durable surface.

to the satisfaction of the Responsible Authority.

28 Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, the car stackers must be installed in accordance with the manufacturer's specifications by a suitably qualified person.

29 The car stackers shown on the endorsed plans must be maintained:

(a) by a suitably qualified person; and

(b) to the satisfaction of the Responsible Authority.

30 Before the use and development commences, a Car Park Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Car Park Management Plan will be endorsed and will form part of this permit. The Car Park Management Plan must address, but not be limited to, the following:

(a) the propping of vehicles in the event that queuing exceeds one vehicle.

31 The provisions, recommendations and requirements of the endorsed Car Park Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority. The Car Park Management Plan must be provided by the Owners Corporation to any future occupants.

32 Before the building is occupied, the installation of the car stacker system must include the installation of an 'in use' warning light on the outside of approximately the south-western corner of the building (with the height and precise location of the warning light to be chosen to as to maximise easy viewing of it by drivers in the adjacent local streets).

Construction

33 Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, all new on-boundary walls must be cleaned and finished to the satisfaction of the Responsible Authority.

34 Before the development is occupied, or by such later date as approved in writing by the Responsible Authority, all screening and other measures to prevent overlooking as shown on the endorsed plans must be installed to the satisfaction of the Responsible Authority.

35 All screening and other measures to prevent overlooking as shown on the endorsed plans must be maintained to the satisfaction of the Responsible Authority.

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 86

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

36 Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, any damage to Council infrastructure resulting from the development must be reinstated:

(a) at the permit holder's cost; and

(b) to the satisfaction of the Responsible Authority.

37 Any parts of the development at, or below natural surface level (including the cavity for the stacker device) are to be waterproofed to prevent any subterranean (groundwater) water or any rainfall run-off from penetrating the walls or floors of the site.

38 The permit holder must take all responsibility for ensuring that rainfall run-off does not enter the property in the event of a heavy storm.

39 Before the development starts, plans showing details of the two pits (grated junction pit and grated side entry pit) and any associated drainage infrastructure must be prepared by a suitably qualified civil engineer and must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will form part of this permit.

40 Before the development commences, a Construction Management Plan prepared to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plan will be endorsed and will form part of this permit. The plan must provide for:

(a) a pre-conditions survey (dilapidation report) of the land and all adjacent Council roads frontages and nearby road infrastructure;

(b) works necessary to protect road and other infrastructure;

(c) remediation of any damage to road and other infrastructure;

(d) containment of dust, dirt and mud within the land and method and frequency of clean up procedures to prevent the accumulation of dust, dirt and mud outside the land;

(e) facilities for vehicle washing, which must be located on the land;

(f) the location of loading zones, site sheds, materials, cranes and crane/hoisting zones, gantries and any other construction related items or equipment to be located in any street;

(g) site security;

(h) management of any environmental hazards including, but not limited to:

(i) contaminated soil;

(ii) materials and waste;

(iii) dust;

(iv) stormwater contamination from run-off and wash-waters;

(v) sediment from the land on roads;

(vi) washing of concrete trucks and other vehicles and machinery; and

(vii) spillage from refuelling cranes and other vehicles and machinery;

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 86

Page 8 of 10

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

(i) the construction program;

(j) preferred arrangements for trucks delivering to the land, including delivery and unloading points and expected duration and frequency;

(k) parking facilities for construction workers;

(l) measures to ensure that all work on the land will be carried out in accordance with the Construction Management Plan;

(m) an outline of requests to occupy public footpaths or roads, or anticipated disruptions to local services;

(n) an emergency contact that is available for 24 hours per day for residents and the Responsible Authority in the event of relevant queries or problems experienced; and

(o) the provision of a traffic management plan to comply with provisions of AS 1742.3-2002 Manual of uniform traffic control devices - Part 3: Traffic control devices for works on roads.

41 Except with the prior written consent of the Responsible Authority, demolition or construction works must not be carried out:

(a) before 7.00 am or after 6.00 pm, Monday-Friday (excluding public holidays);

(b) before 9.00 am or after 3.00 pm, Saturdays and public holidays (other than ANZAC Day, Christmas Day and Good Friday); or

(c) at any time on Sundays, ANZAC Day, Christmas Day and Good Friday.

42 This permit will expire if:

(a) the development is not commenced within three years of the date of this permit; or

(b) the development is not completed within five years of the date of this permit; or

(c) the use is not commenced within five years from the date of this permit.

The Responsible Authority may extend the periods referred to if a request is made in writing before the permit expires or within six months afterwards for commencement or within twelve months afterwards for completion.

Notes

A building permit may be required before development is commenced. Please contact Council's Building Services on 9205 5095 for to confirm.

Provision must be made for drainage of the site to a legal point of discharge. Please contact Council's Building Services on 9205 5095 for further information.

All future residents, employees and occupiers residing within the development approved under this permit will not be permitted to obtain resident, employee or visitor parking permits.

In accordance with the Yarra Planning Scheme, a 4.5 percent public open space contribution will apply in the event of the subdivision of the land.

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 86

Page 9 of 10

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

THIS PERMIT WAS ISSUED AT THE DIRECTION OF VCAT AS FOLLOWS:

Date of Order	
5 December 2014	Planning Permit PLN14/0318 was issued in accordance with the order of the Victorian Civil and Administrative Tribunal, reference: P1150/2014.
8 January 2015	Planning Permit PLN14/0318 amended pursuant to Section 71 and Section 73 of The Planning and Environment Act 1987 to change the date of the permit from 2015 to 2014 to correct a clerical error.

Date: 05 December 2014

Katrina Thomas
Signature for the Responsible Authority

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 63 and 86

Page 10 of 10

Attachment 3 - PLN19/0751 - 375 & 377 Punt Road - Planning Permit PLN14/0318 for existing building under construction

PLANNING PERMIT

IMPORTANT INFORMATION ABOUT THIS PERMIT

WHAT HAS BEEN DECIDED?

The Responsible Authority has issued a permit.
(Note: This is not a permit granted under Division 5 or 6 of Part 4 of the **Planning and Environment Act 1987**.)

WHEN DOES A PERMIT BEGIN?

A permit operates:

* from the date specified in the permit, or
* if no date is specified, from—

(i) the date of the decision of the Victorian Civil and Administrative Tribunal, if the permit was issued at the direction of the Tribunal, or
(ii) the date on which it was issued, in any other case.

WHEN DOES A PERMIT EXPIRE?

1. A permit for the development of land expires if—

* the development or any stage of it does not start within the time specified in the permit, or
* the development requires the certification of a plan of subdivision or consolidation under the **Subdivision Act 1988** and the plan is not certified within two years of the issue of the permit, unless the permit contains a different provision, or
* the development or any stage is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit or in the case of a subdivision or consolidation within 5 years of the certification of the plan of subdivision or consolidation under the **Subdivision Act 1988**.

2. A permit for the use of land expires if—

* the use does not start within the time specified in the permit, or if no time is specified, within two years after the issue of the permit, or
* the use is discontinued for a period of two years.

3. A permit for the development and use of land expires if—

* the development or any stage of it does not start within the time specified in the permit, or
* the development or any stage of it is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit, or
* the use does not start within the time specified in the permit, or, if no time is specified, within two years after the completion of the development, or
* the use is discontinued for a period of two years.

4. If a permit for the use of land or the development and use of land or relating to any of the circumstances mentioned in section 6A(2) of the **Planning and Environment Act 1987**, or to any combination of use, development or any of those circumstances requires the certification of a plan under the **Subdivision Act 1988**, unless the permit contains a different provision—

* the use or development of any stage is to be taken to have started when the plan is certified, and
* the permit expires if the plan is not certified within two years of the issue of the permit.

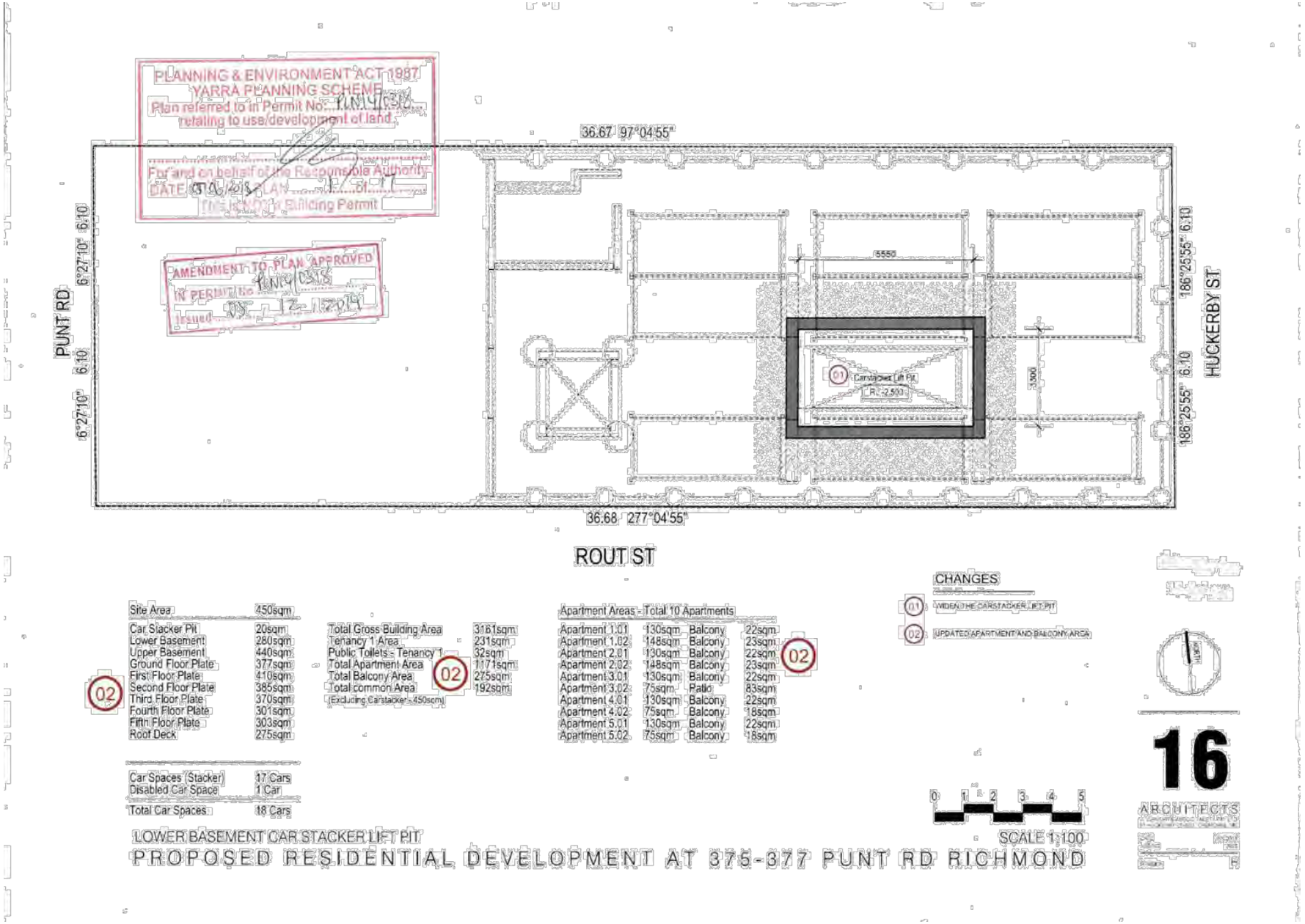
5. The expiry of a permit does not affect the validity of anything done under that permit before the expiry.

WHAT ABOUT APPEALS?

* The person who applied for the permit may apply for a review of any condition in the permit unless it was granted at the direction of the Victorian Civil and Administrative Tribunal, in which case no right of review exists.
* An application for review must be lodged within 60 days after the permit was issued, unless a notice of decision to grant a permit has been issued previously, in which case the application for review must be lodged within 60 days after the giving of that notice.
* An application for review is lodged with the Victorian Civil and Administrative Tribunal.
* An application for review must be made on an Application for Review form which can be obtained from the Victorian Civil and Administrative Tribunal, and be accompanied by the applicable fee.
* An application for review must state the grounds upon which it is based.
* An application for review must also be served on the Responsible Authority. Details about applications for review and the fees payable can be obtained from the Victorian Civil and Administrative Tribunal.

Planning and Environment Regulations 2005 No. 33 Form 4 Sections 53 and 86

Attachment 4 - PLN19/0751 - 375 & 377 Punt Road - Endorsed Plans for PLN14/0318



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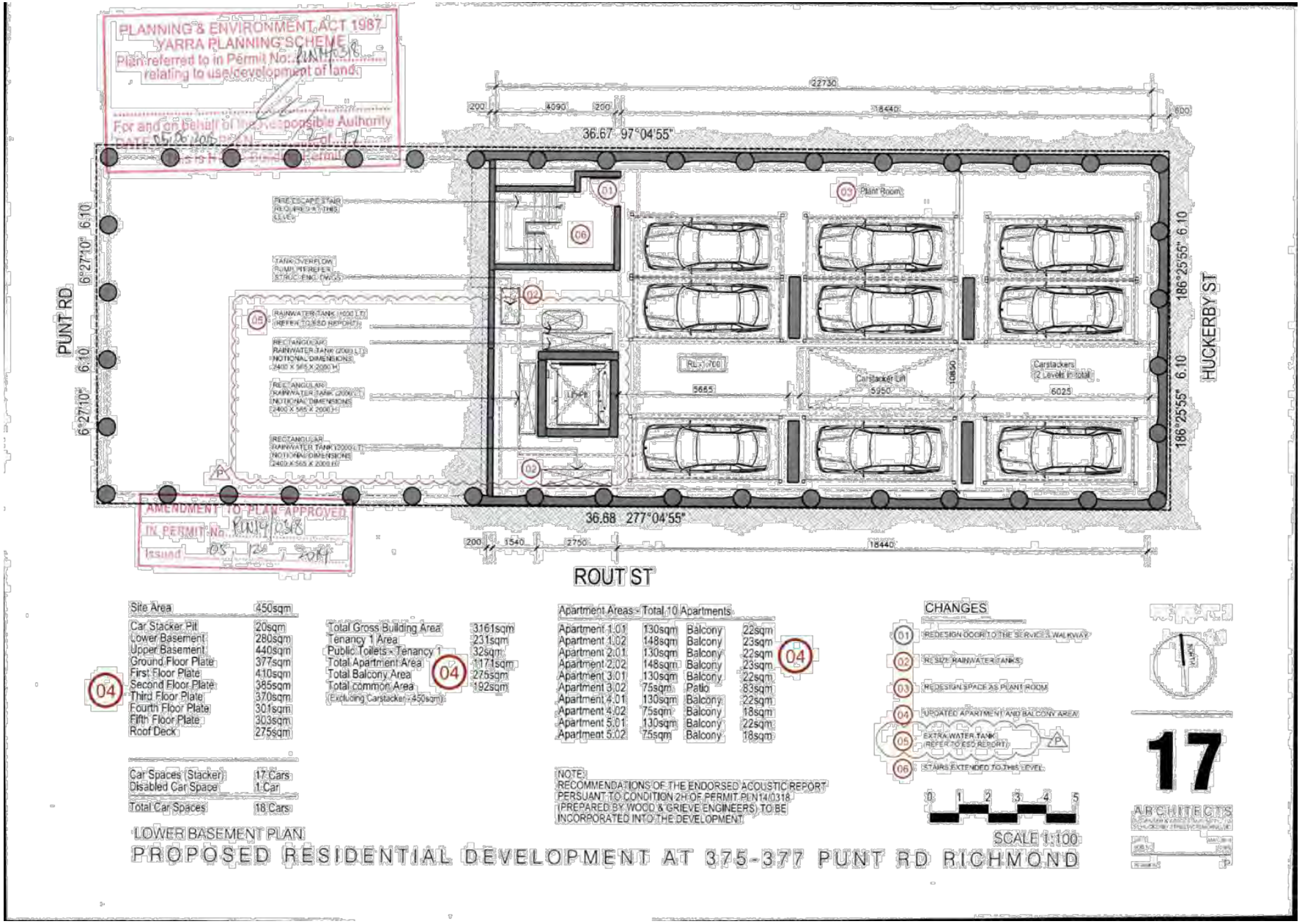

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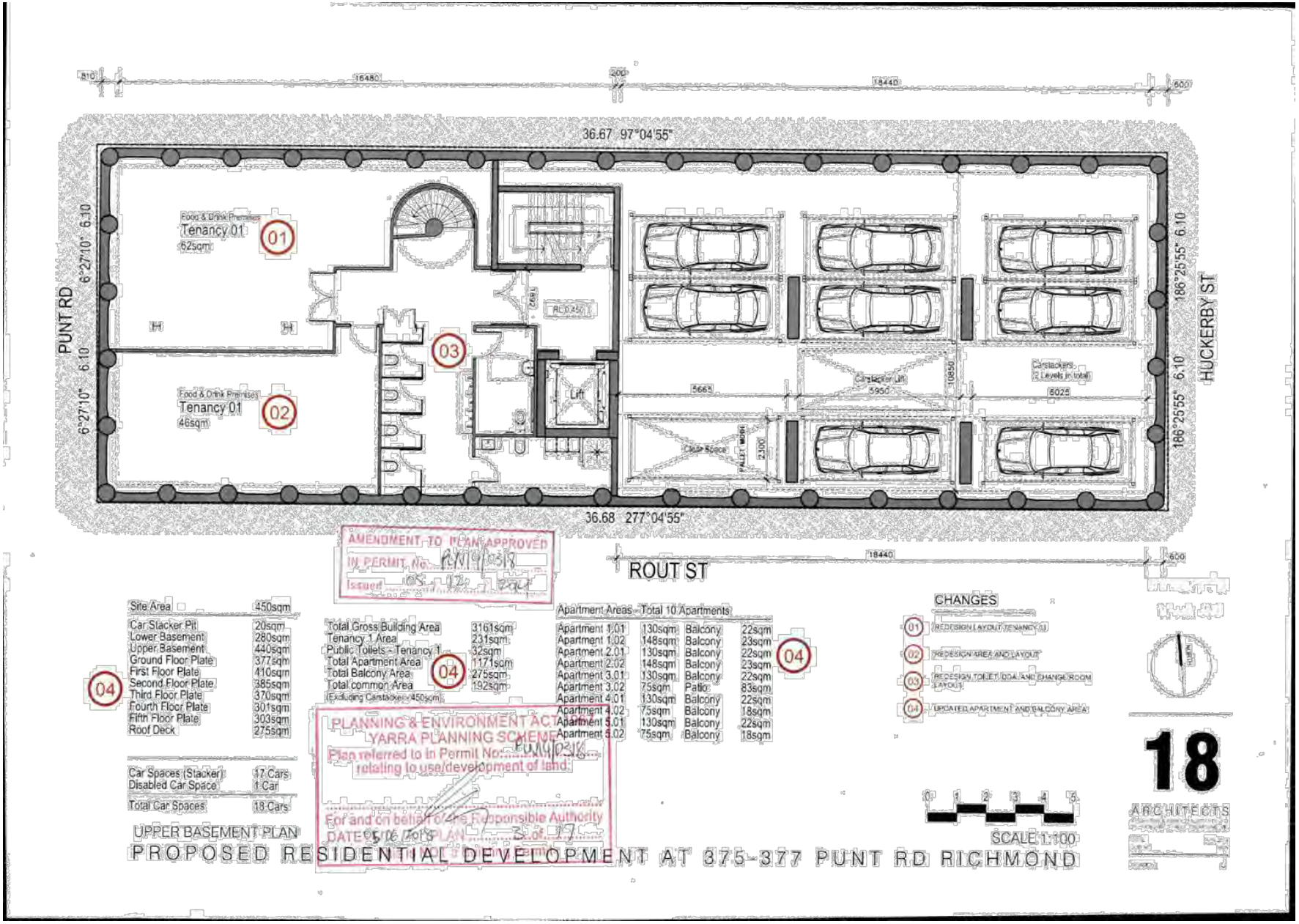

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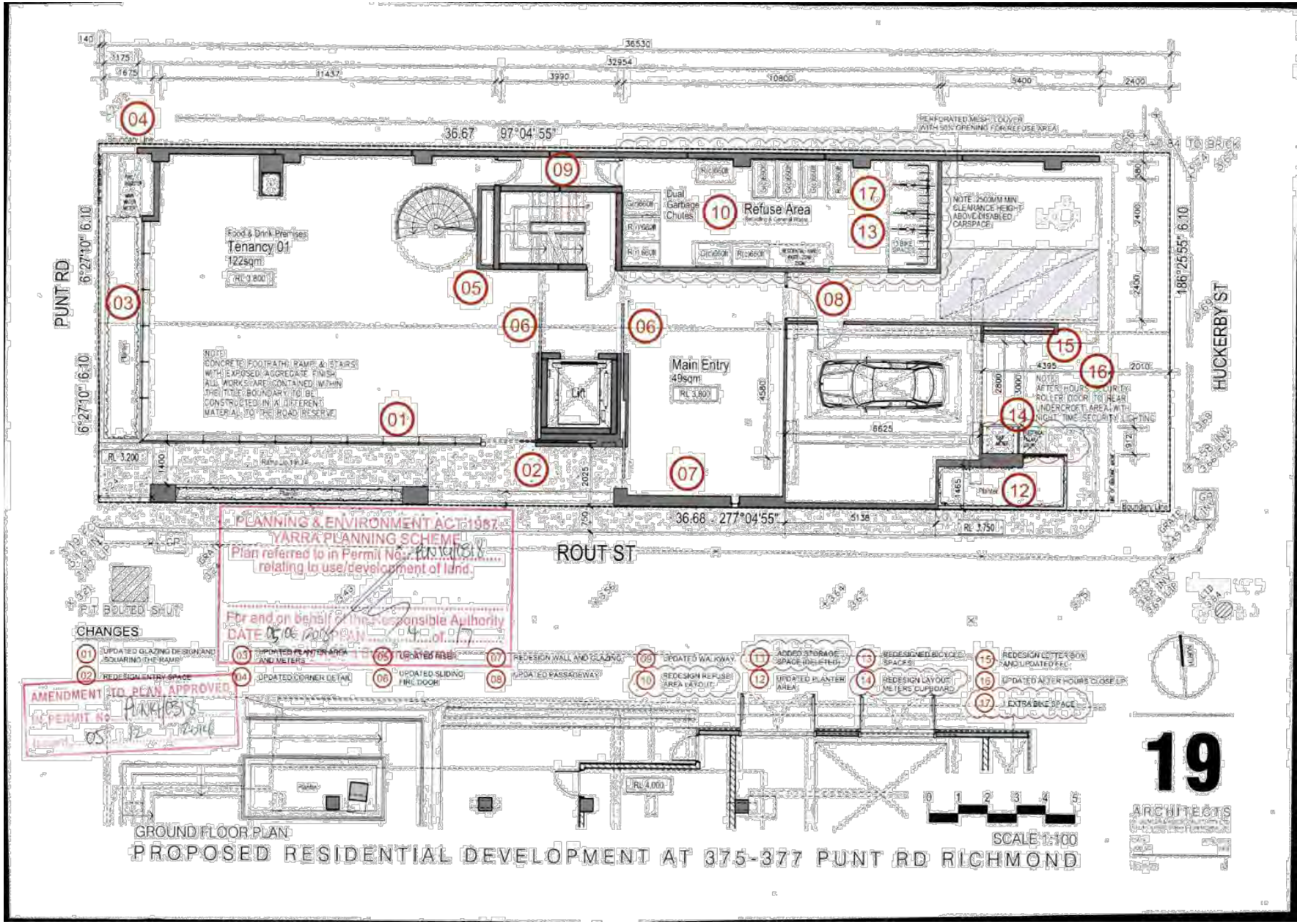

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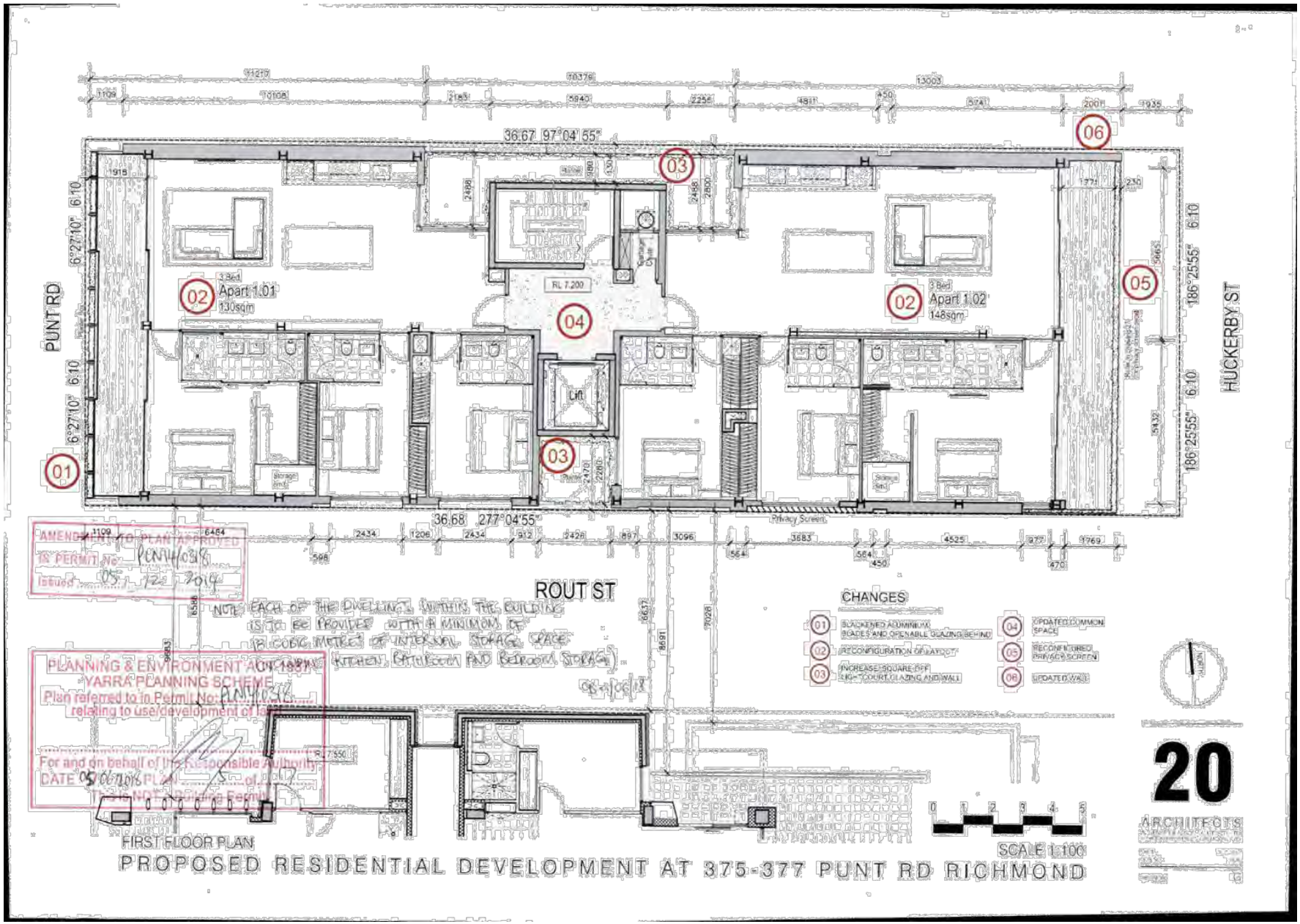

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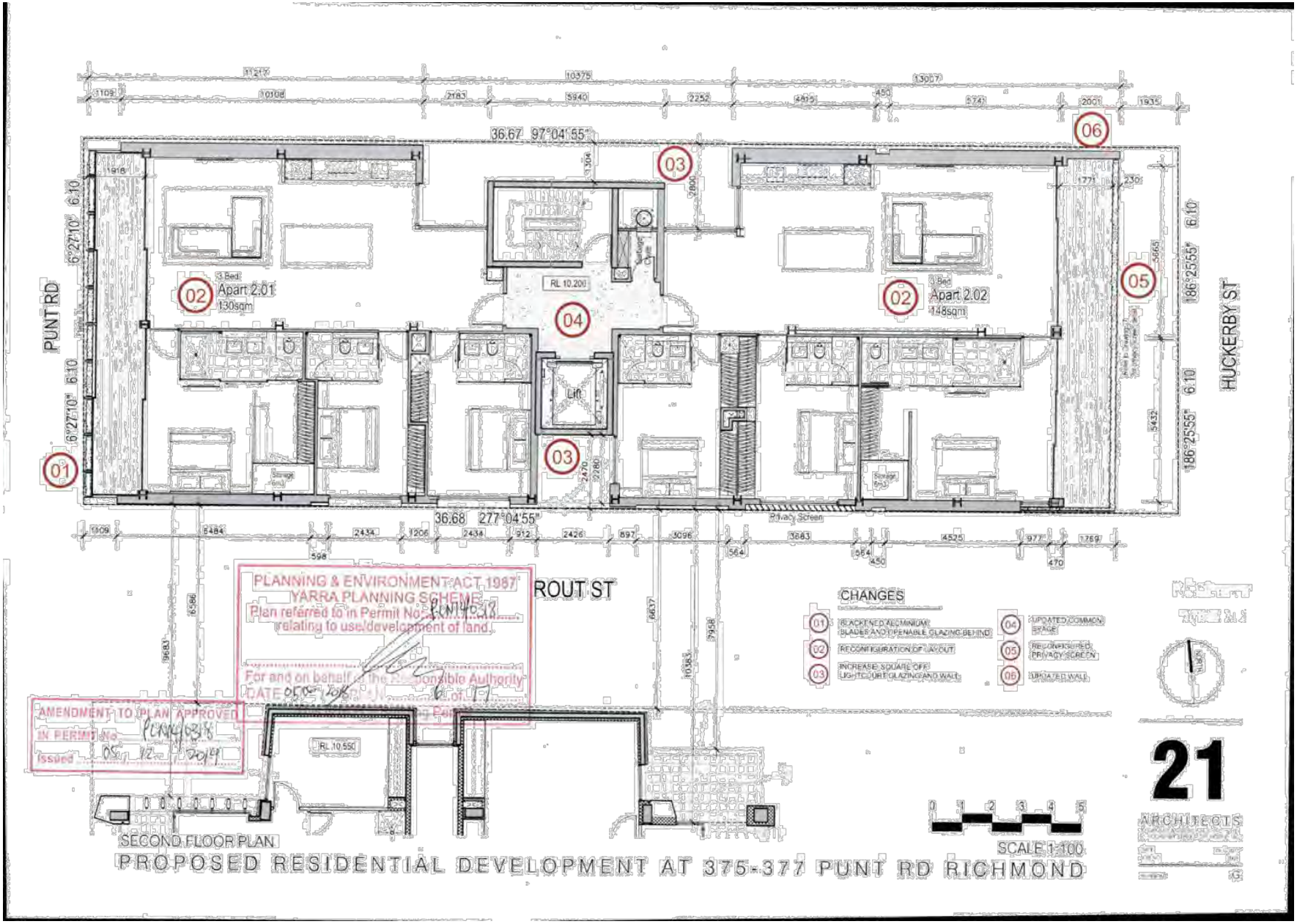

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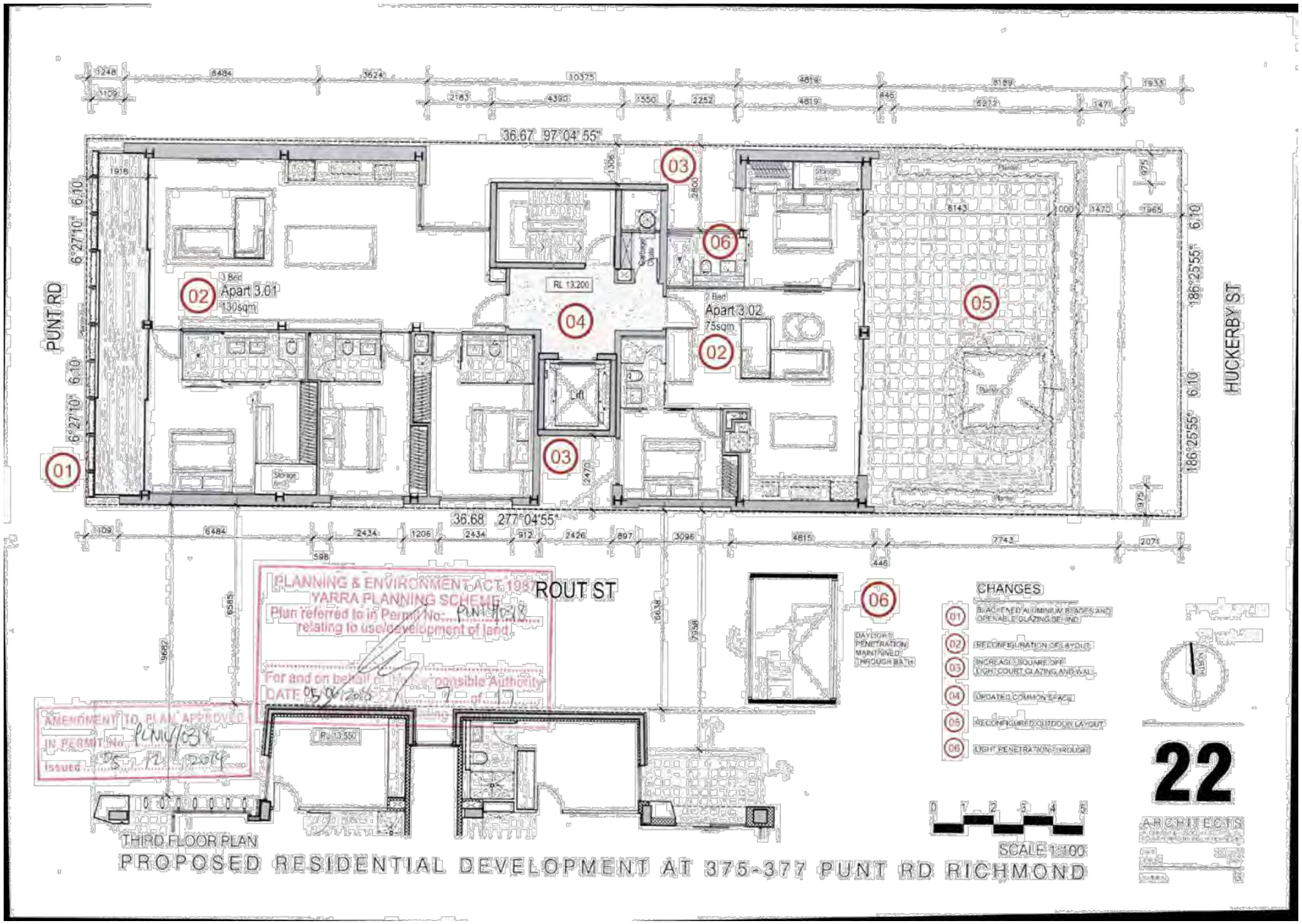

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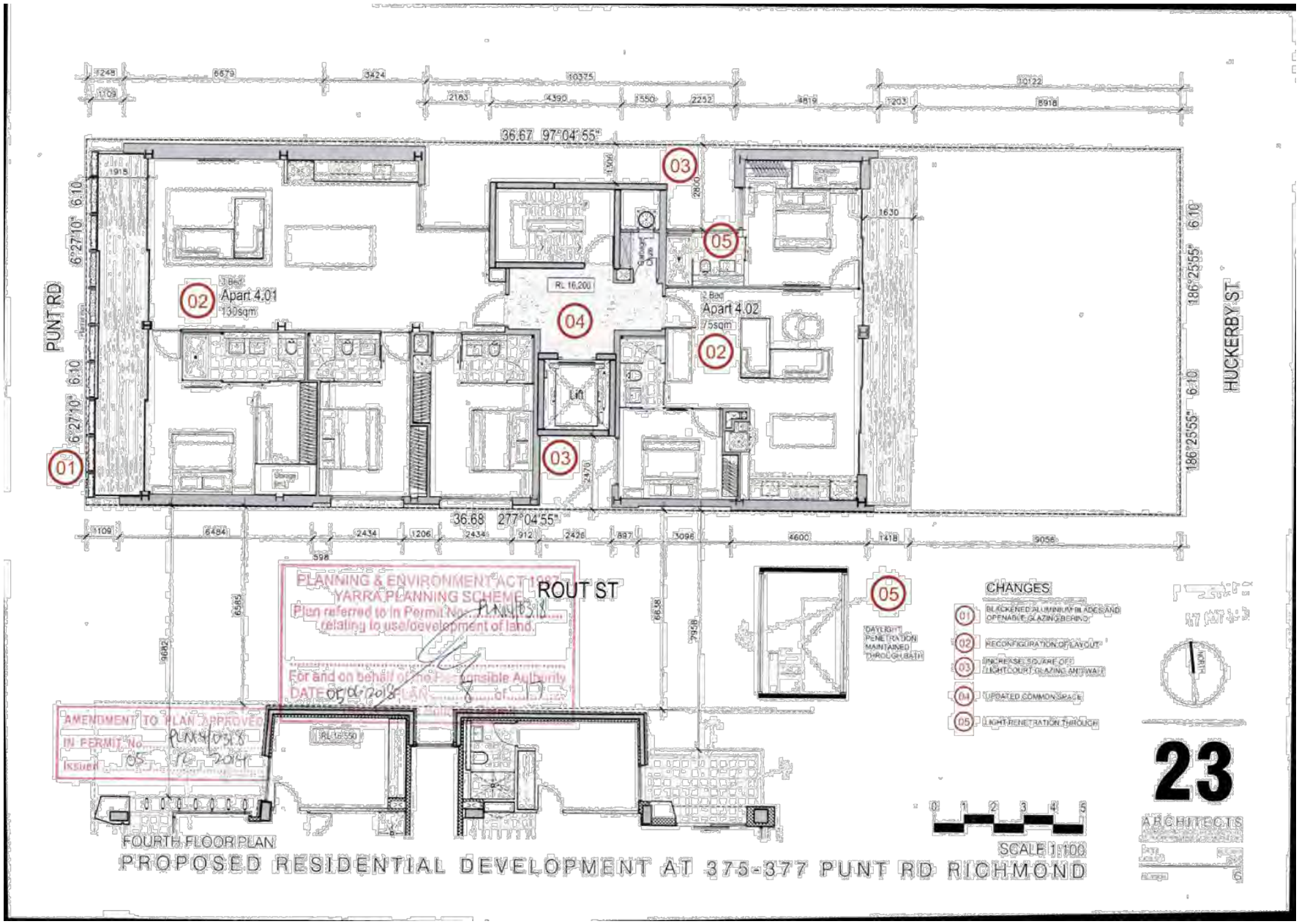

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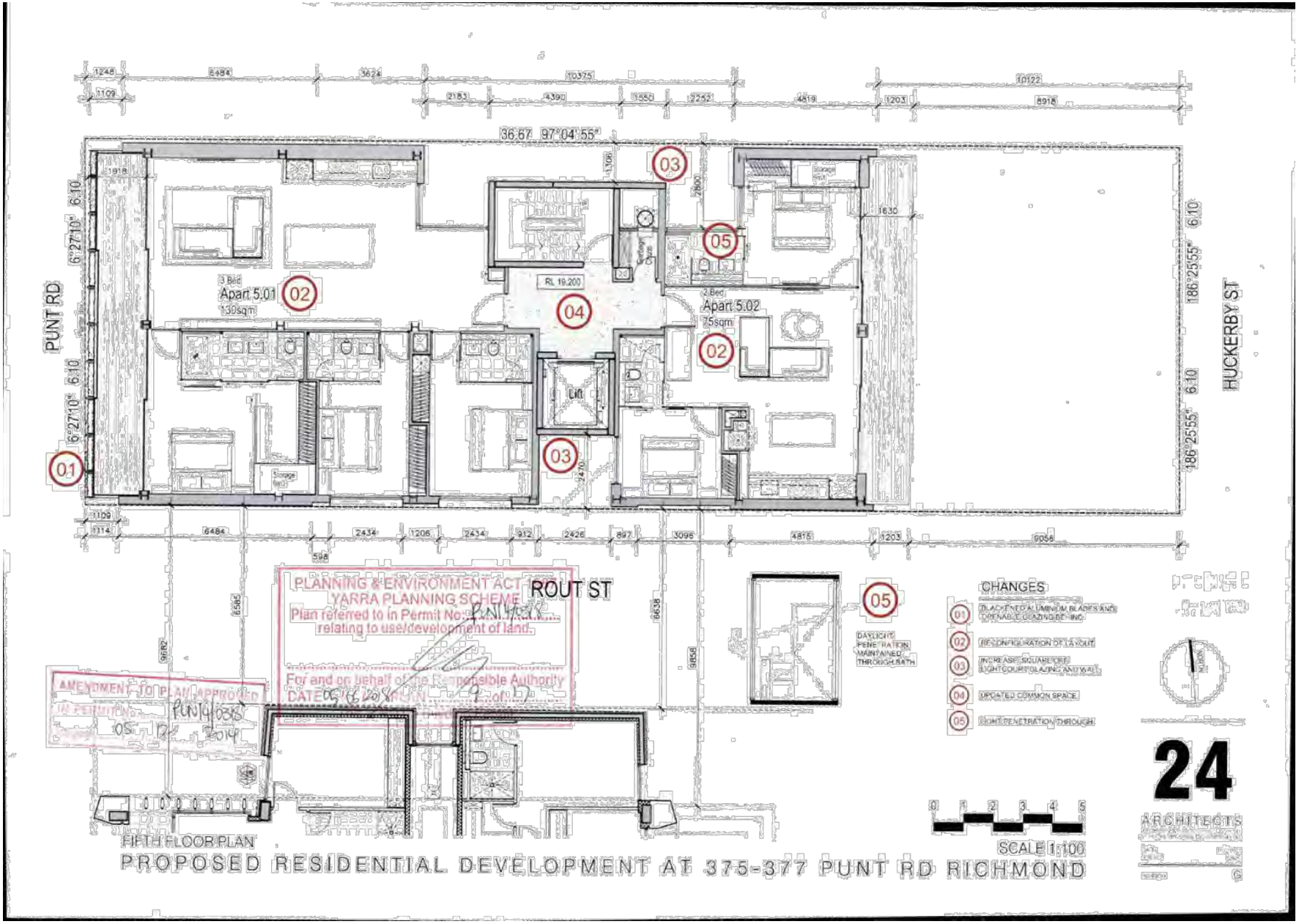

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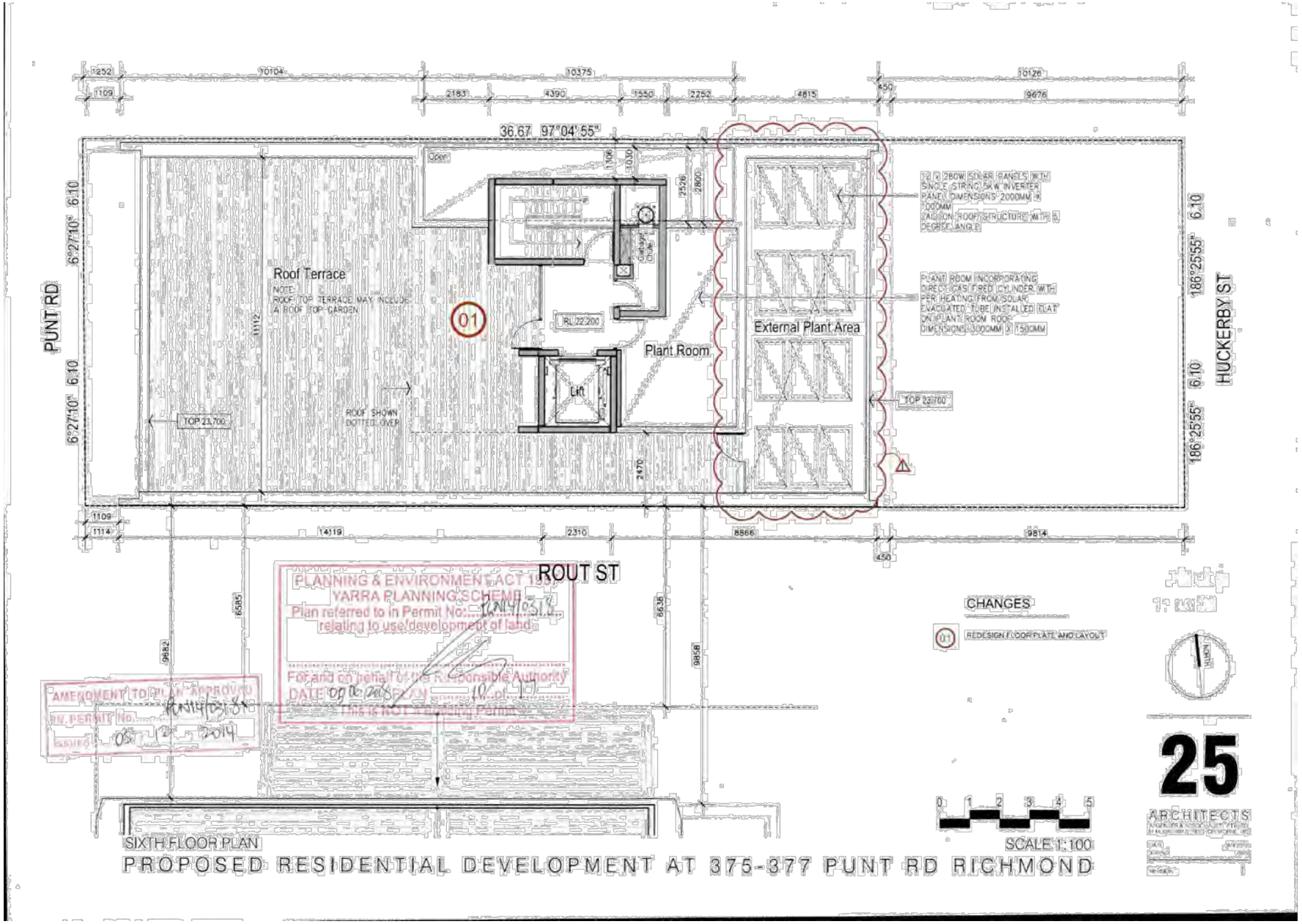

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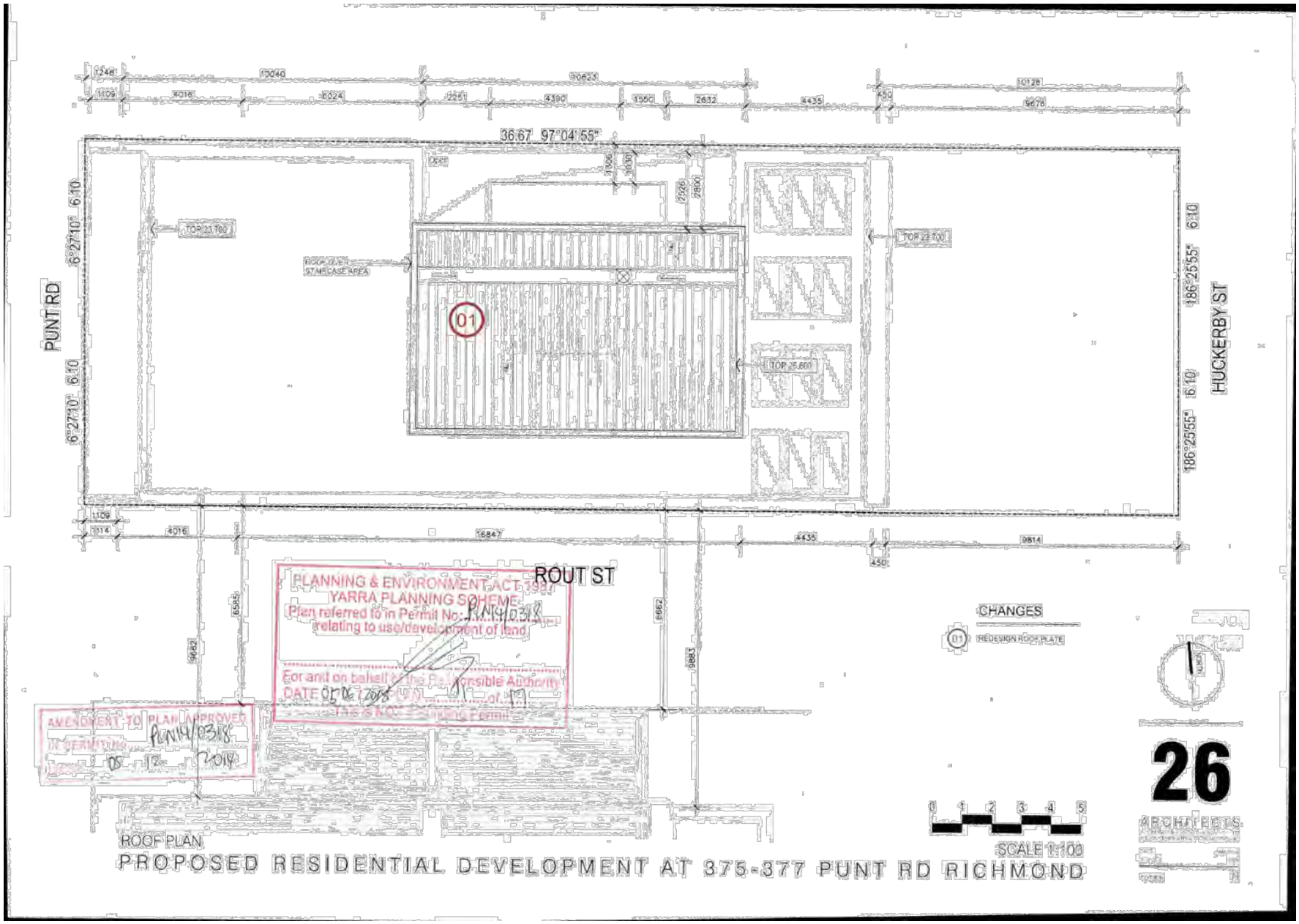

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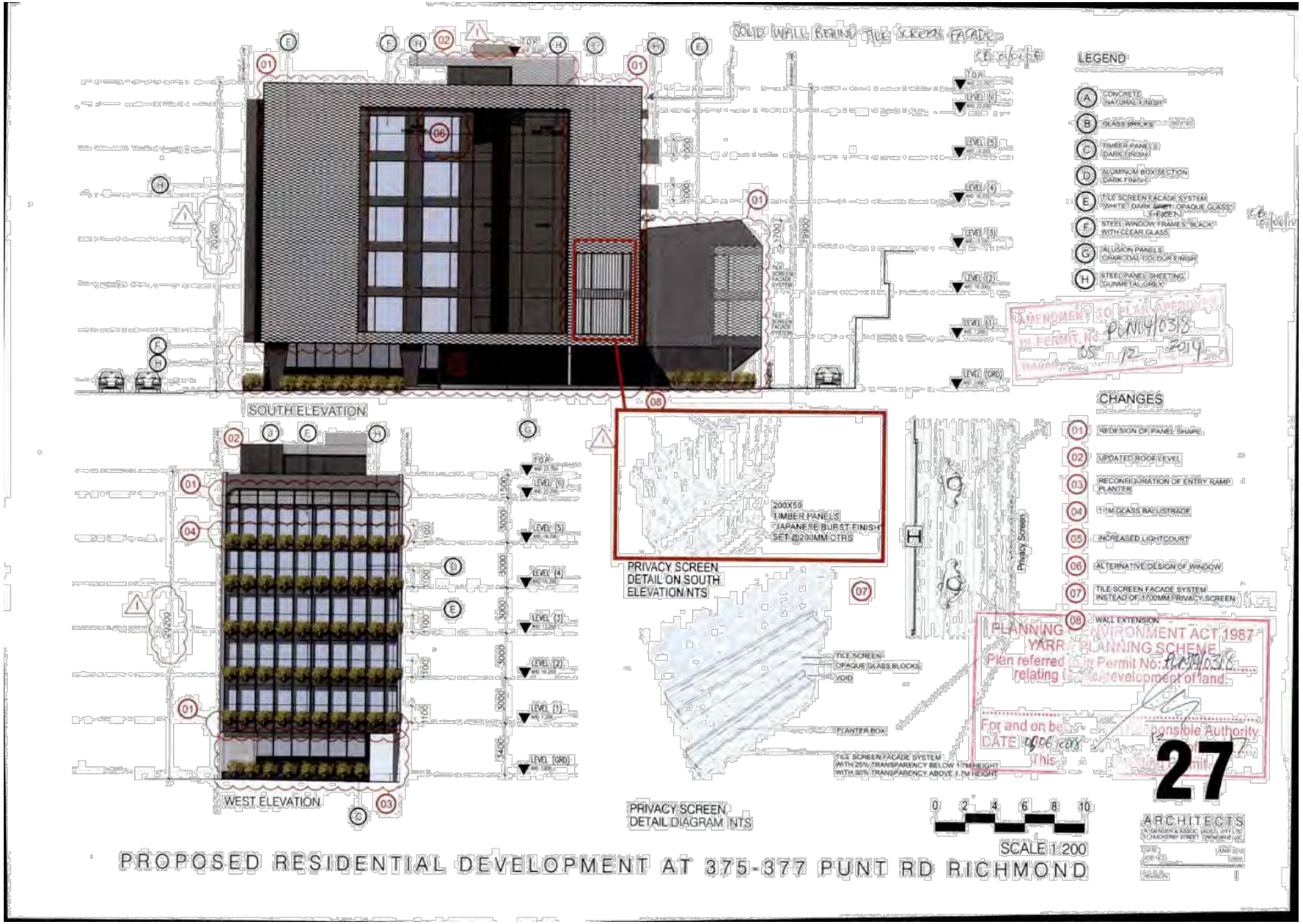

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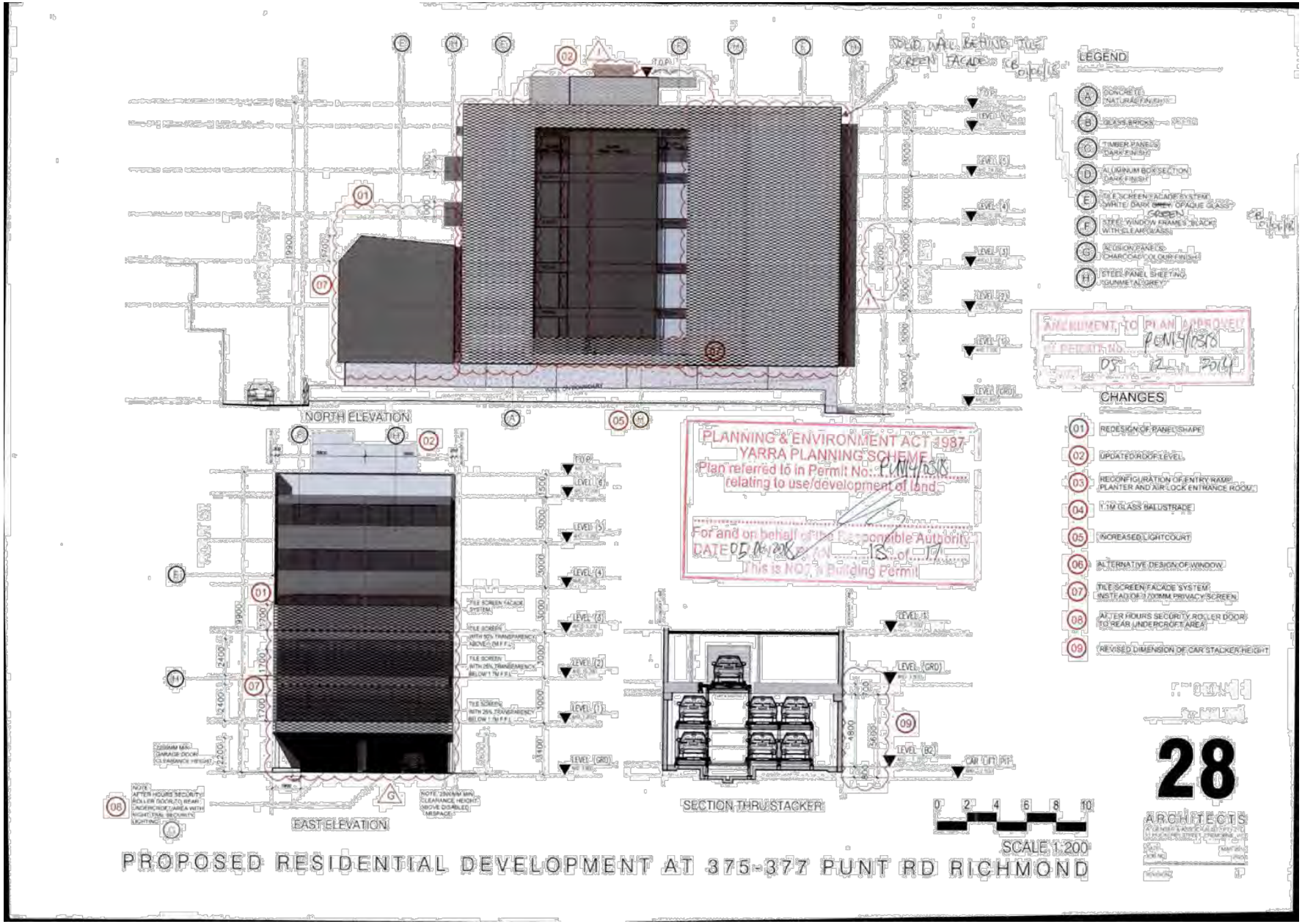

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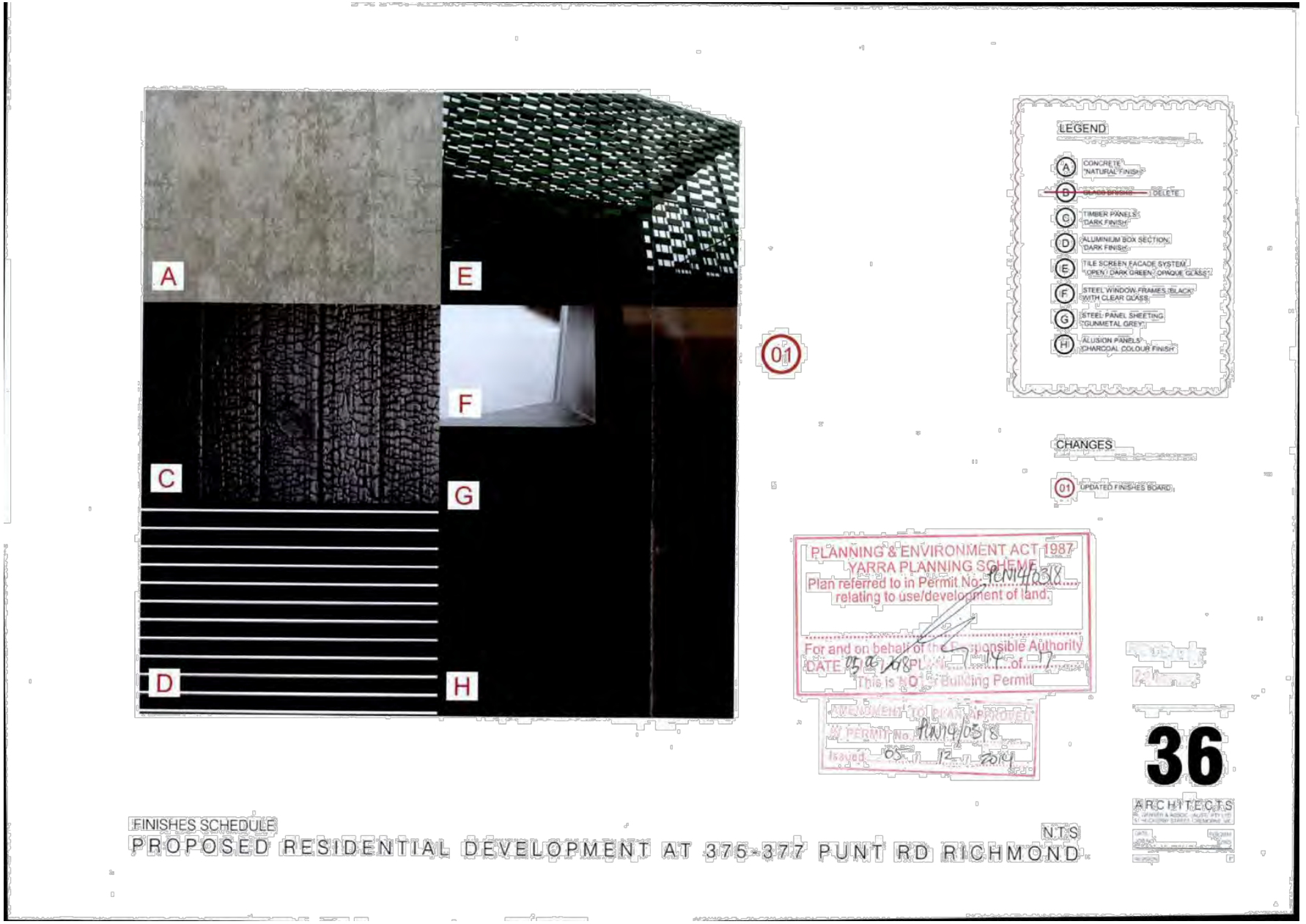

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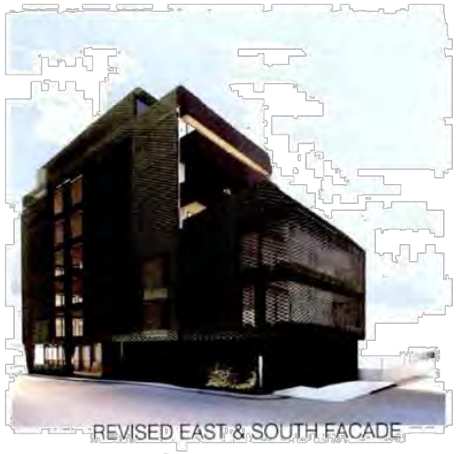


REVISED EAST & SOUTH FACADE

REVISED NORTH FACADE

DETAILS OF EAST FACADE

TILE SCREEN FACADE SYSTEM *(DULUX POWDERCOAT COTTAGE GREEN MATT FINISH)*

OPAQUE GLASS BLOCK

VOID

PLANTERS

NB: THE EAST FACE OVERLOOKING IS SCREENED BY PROVIDING THE FOLLOWING TILE SCREEN FACADE SYSTEM
25% TRANSPARENCY BELOW 1.7M F.F.L AND
50% TRANSPARENCY ABOVE 1.7M F.F.L

THE BALANCE OF THE GREEN STEEL TILE FACADE IS 50% SOLID GREEN STEEL AND 50% OPEN

38

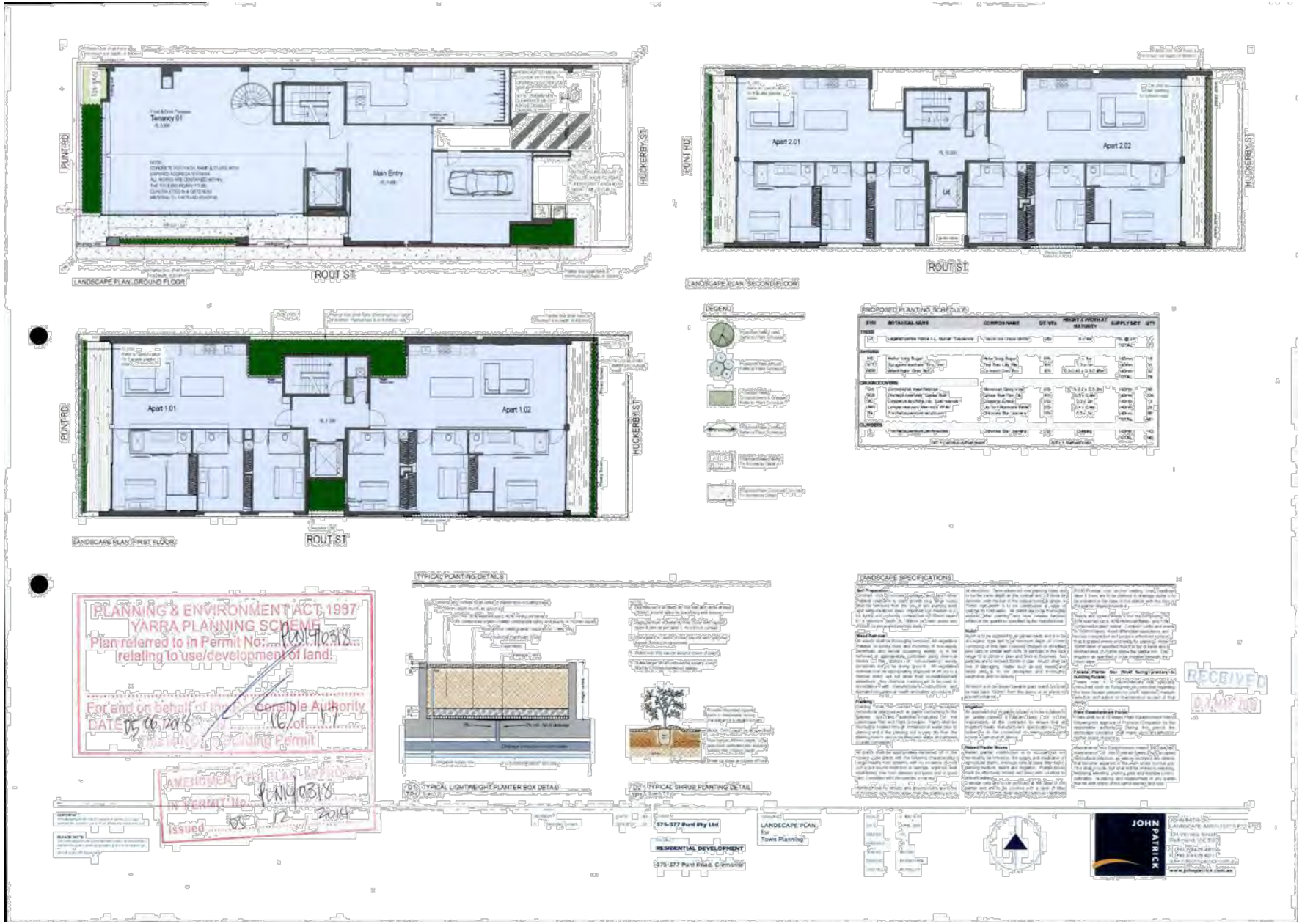
ARCHITECTS

FACADE IMAGES

N.T.S

PROPOSED RESIDENTIAL DEVELOPMENT AT 375-377 PUNT RD RICHMOND

Attachment 4 - PLN19/0751 - 375 & 377 Punt Road - Endorsed Plans for PLN14/0318



Attachment 4 - PLN19/0751 - 375 & 377 Punt Road - Endorsed Plans for PLN14/0318

Attachment 5 - PLN19/0751 - 375 & 337 Punt Road - Social Planning comments

MeMO

TO:	Laura Condon, Senior Statutory Planner
FROM:	Julia Bennett-Mitrovski, Senior Planner (Community Health and Safety)
DATE:	29 January 2020
ADDRESS:	375 Punt Road, Richmond
APPLICATION NO:	PLN19/0751
DESCRIPTION:	Development of the land within the existing building (internal and external alterations) and use as a residential hotel (61 rooms), food and drink premises and bars: • Sale and consumption of liquor (on-premises) associated with the hotel food and beverage service for max 200 patrons (12 noon-10.00pm Sunday to Thursday and 12 noon-12 midnight Friday to Saturday) for the ground and basement food and drinks premises/bar, conference room and hotel rooms and (12 noon-9.00pm Sunday to Thursday and 12 noon-11.00pm Friday to Saturday) for the roof bar; • Construction and display of signage; and • Reduction in the car parking requirements (associated with the food and drink premises).

Social Policy and Research has been requested to make comments on the proposal from a social planning perspective in relation to the following:

- Is the proposed liquor licence for the hotel food services and conference and roof terrace bar acceptable for 200 patrons?

PROPOSAL

Key aspects of the site and proposal include:

- The site is located in the General Residential 4 Zone.
- The site is located in the City Link Project Overlay (CLPO), Design and Development Overlay (DDO) Schedule 2 and Schedule 17-1.
- The site adjoins a residential zone, the General Residential Zone Schedule 4, to the north and south and the Neighbourhood Residential Zone to the east, beyond Huckerby Street directly adjoining the site to the east.
- The site has three frontages, to the west it fronts Punt Road (arterial road, Road Zone Category 1) and to the south it fronts Rout Street (residential area) and to the east it fronts Huckerby Street (residential).
- Council's planner has indicated that the site has an approval for 10 dwellings and a food and drinks premises under PLN14/0318 (no liquor licence). The building is nearing completion.

D18/96837 is the endorsed plans and D15/4631 for permit. No previous planning approval has been issued for a liquor licence.

- The proposed redline area includes all internal areas of the premises (except lower basement level) and the roof top internal spaces.
- The sale of liquor will be divided between the upper basement level (Hotel Food & Beverage), the ground floor level (Hotel Food & Beverage) and the roof top level (Bar). Liquor is also proposed to be served to guests in hotel rooms and may be served to guests in the hotel conference room and flexible spaces, depending on the activity proposed. Liquor will solely be sold and consumed on the premises and a strict policy will be put in place to prevent the consumption of liquor outside of the premises.
- The proposal is for seating and standing, however, there will be minimal standing space available in the areas serving liquor. The intention is to have chairs/tables which seat 2 to 14 persons per table and a seating ratio of 80%.
- Liquor will solely be sold and consumed on the premises and a strict policy will be put in place to prevent the consumption of liquor outside of the premises.
- This Noise and Amenity Action Plan has been prepared in accordance with the requirements of Clause 22.09 of the Yarra Planning Scheme and should be read in conjunction with the Planning Report prepared by Hellier McFarland and Acoustic Report prepared by Form Engineers.

COMMENTS / RECOMMENDATIONS

- There are two (2) licensed premises within 100 metres of the subject site and a total of 36 licensed venues within 500 metres, with most concentrated along Swan Street, to the north-west of the subject site and generally in accordance with the *Core Entertainment Precinct* of Swan Street west of Church Street identified in Clause 22.09 of the Yarra Planning Scheme. A cumulative impact assessment is required and both this and a NAAP has been provided by the applicant.
- The proposed hours for the service of liquor are considered acceptable.
- It is recommended that the red line should be revised to exclude amenity areas (including toilets/kitchen/storage areas) and all transit points. This is to contain the service and consumption of alcohol to 'zones' throughout the building.
- Given the roof terrace is not included within the redline area, and the sale and consumption of liquor is contained within the building, there are minimal concerns with the proposal for the liquor licence for up to 200 patrons at the site (allowing the 125 hotel guests and an additional 75 visitors at any one time). One concern would be that the rooftop and other areas are not large enough to accommodate up to 200 patrons, and that adequate seating has not been provided to discourage vertical drinking. Therefore, it is recommended that each 'space' or 'zone' where liquor is intended to be sold or consumed be designated a maximum number of patrons at any one time, to ensure a maximum of 200 patrons are not located at the bar/roof top terrace, for example.
- Clause 22.09 states that the sale and consumption of liquor beyond 8pm should not occur if the site is located within a Residential Zone, unless the responsible authority is satisfied that it will not adversely affect the amenity of the area. Given the location of the site fronting onto arguably the busiest road in metropolitan Melbourne (which also generates a significant amount of noise), it is considered that there would be lesser amenity impacts in regard to extending the hours for sale and consumption of liquor from the premises beyond 8pm. This also falls in line with the applicant stating the following in their application:

  > *It is acknowledged that the policy at Clause 22.09-3 encourages licensed premises in a residential zone to not provide for the sale and consumption of liquor beyond 8pm.*

Attachment 5 - PLN19/0751 - 375 & 337 Punt Road - Social Planning comments

However, given the nature of the proposed use, the context of the subject site and proposed Amendment C191 which proposes to rezone the subject site to a C1Z, it is considered that preventing the sale and consumption of liquor beyond 8pm for the site would compete against the broader planning strategies, ambition and vision for the area and would be detrimental to the operation of the residential hotel.

It is advised that the status of Amendment C191 when making a decision should be considered.

- For outdoor areas, including smoking areas, rooftops and open courtyards, Clause 22.09 states that the sale and consumption of liquor should not occur after 10pm, unless the responsible authority is satisfied that it will not adversely affect the amenity of the area. It is considered that despite not extending the redline area out to the roof terrace, that it be closed off around 10pm, on amenity grounds, particularly toward the north, east and south-adjoining residential properties. This aligns with a staggered close with the rooftop 'enclosed' bar proposed to close at 11pm.
- Deliveries to and waste collection from a licensed premises should not occur after 10pm on any day, before 7am Monday to Saturday, or before 9am on a Sunday or public holiday except for those allowed under any relevant local law. Emptying bottles into bins in outdoor areas should not occur after 10pm on any day, before 7am Monday to Saturday, or before 9am on a Sunday or public holiday. This should be included as a condition of any approval along with other necessary amenity conditions.
- The proposal has noted that all music will be limited to low level background music. No live bands or DJ's will operate from the premises. Music on the premises is required to comply with standards set out in the State Environment Protection Policy (SEPP N-2) – Control of Music Noise from Public Premises. This is acceptable.
- One problematic aspect of the proposal is where the maximum 200 patrons and proposed to exit the premises, and what the easiest/likely preferred route would be for patrons to access public transportation (train or tram) or ride share. As it stands, the proposed entrance to the site from the side street (southern elevation) would predict it likely that patrons exit toward the neighbouring residential area (and travel north-west toward Swan Street and Richmond train station). This is not preferred. It is suggested that the applicant propose a suitable patron exit strategy (including a security guard and lighting/urban design techniques) to encourage/direct patrons to exit westerly (toward Punt Road), and to take the pedestrian route north up Punt Road towards Swan Street/Richmond train station.
- It is strongly recommended that the acoustic report be assessed by an independent, suitably qualified acoustic engineer.

Attachment 6 - PLN19/0751 - 375 & 377 Punt Road - Community Amenity comments

MeMO

TO: **Laura CONDON**

cc:

FROM: **Brad Speechley**

DATE: **21 January 2020**

APPLICATION: **PLN19/0751**

SUBJECT: **Amenity Enforcement Referral**

Dear Laura,

Thank you for your referral dated 20 December 2019, in relation to 375 Punt Road Richmond VIC 3121.

I can advise you that Planning Enforcement has received no complaints in relation to the 'use' of the land. I have reviewed the documentation supplied for the sale and consumption of liquor

- On-premises for a maximum of 200 patrons, with the operational hours being from 12pm – 10.00pm Sunday to Thursday and 12pm-12am, Friday to Saturday.
- The sale & consumption of liquor on and off premises with operational hours from 12pm - 12am Friday to Saturday for the ground and basement, food and drinks premises/bar, conference room and hotel rooms.
- From 12pm -9.00pm Sunday to Thursday and 12pm -11.00pm Friday to Saturday for the roof bar.

This proposal poses a low amenity risk. The Compliance Branch does not have any concerns with this application.

Should you wish to discuss the referral further, please feel free to contact me on 9205-5017.

Regards

Brad Speechley

Brad Speechley
Coordinator Civic Compliance

Attachment 7 - PLN19/0751 - 375 & 377 Punt Road - Contracts Services comments

Contracts Services comments

The waste management plan for PLN19/0751 - 375 – 377 Punt Road, Cremorne authored by Lid consulting and dated 16/12/19 is not satisfactory from a City Works Branch's perspective.
Issues to be rectified include, but may not be limited to the following:

1. Food waste diversion should be included as a requirement.
2. E-waste is particularly important please highlight.
3. Please identify E waste storage area within the bin storage area.
4. Council does not offer hard waste or green waste service for commercial properties.

Regards,

Atha Athanasi
Contract Management Officer

City Works Services
Parks, Resource Recovery, Cleansing

City of Yarra – City Works Depot
168 Roseneath St CLIFTON HILL VIC 3068
T (03) 9205 5547 F (03) 8417 6666
Atha.Athanasi@yarracity.vic.gov.au
www.yarracity.vic.gov.au

Attachment 8 - PLN19/0751 - 375 & 375 Punt Road - Strategic Transport comments

Planning Referral

To:	Laura Condon
From:	Chloe Wright
Date:	18/03/2020
Subject:	Strategic Transport Comments
Application No:	PLN19/0751
Description:	Development of the land within the existing building (internal and external alterations) and use as a residential hotel (61 rooms), food and drink premises and bars
Site Address	375 Punt Road, Richmond

I refer to the above Planning Application and the accompanying Traffic report prepared by Traffix Group in relation to the proposed residential hotel at 375 Punt Road, Richmond. Council's Strategic Transport unit provides the following information:

Access and Safety

No access or safety issues have been identified.

Bicycle Parking Provision

Statutory Requirement

Under the provisions of Clause 52.34-3 of the Yarra Planning Scheme, the development's bicycle parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate	No. of Spaces Required	No. of Spaces Allocated
Residential building (other than specified in the table)	61 lodging rooms	In developments of four or more storeys, 1 resident space to each 10 lodging rooms	6 resident spaces	14 resident / employee spaces
		In developments of four or more storeys, 1 visitor space to each 10 lodging rooms	6 visitor spaces	2 visitor spaces
Retail premises (other than specified in this table)	313 sqm	1 employee space to each 300 sqm of leasable floor area	1 employee spaces	
		1 visitor space to each 500 sqm of leasable floor area	1 visitor spaces	
Bicycle Parking Spaces Total			**7 resident / employee spaces**	**14 resident / employee spaces**
			7 visitor spaces	**2 visitor spaces**
Showers / Change rooms		1 to the first 5 employee spaces and 1 to each additional 10 employee spaces	**1 showers / change rooms**	**2 showers / change rooms**

Attachment 8 - PLN19/0751 - 375 & 375 Punt Road - Strategic Transport comments

Adequacy of visitor spaces

The following comments are provided in relation to visitor bicycle parking:

- Two visitor bicycle spaces are provided at the Punt Street entrance to the development, which does not meet the planning scheme requirement of seven visitor spaces.
- However, given additional employee/resident spaces are provided (7 additional than the planning scheme requirement) within the building and there is limited space on the surrounding footpaths, two visitor spaces is acceptable.
- This is also on the basis that visitors/hotel guests are granted access to store bikes within the bike store room on the lower basement level (this is noted in the Traffic report).
- Visitor bicycle parking appears to be a horizontal at-grade space as per requirements of AS2890.3.
- The visitor parking at Punt Road appears to be in accordance with access and clearance requirements of AS2890.3.

Adequacy of employee/resident spaces

Number of spaces

14 employee/resident spaces are proposed, which exceeds the statutory requirement of 7 spaces.

Design and location of employee spaces and facilities

The following comments are provided in relation to the location and design of employee bike parking:

- The type of employee/resident bike rack is not specified, however it appears that all spaces are wall racks. Pursuant with AS2890.3, at least 20% of bicycle storage spaces should be provided as horizontal at ground-level spaces.
- Employee bicycle spaces and access ways appear to be in accordance with the clearance requirements of AS2890.3.
- Access to the employee/resident bicycle storage area is via the lift shaft. The end of trip facilities and bicycle parking is within close proximity to the lift shaft and is acceptable.
- Two shower / change rooms are provided, which exceeds Council's best practice standards recommendation of one shower per 10 bicycle spaces.

Recommendations

The following should be shown on the plans before endorsement:

1. At minimum 20% of employee/resident bicycle spaces must be provided as horizontal bicycle rails.
2. Notations indicating the dimensions of employee/resident bicycle storage spaces and relevant access ways to demonstrate compliance with Australian Standard AS2890.3 or be otherwise to the satisfaction of the responsible authority.

Regards

Chloe Wright
Sustainable Transport Officer
Strategic Transport Unit

Attachment 9 - PLN19/0751 - 375 & 377 Punt Road - Melbourne Water comments

Melbourne Water

22 January 2020

Ally Huynh
Yarra City Council
P.O. Box 168
RICHMOND VIC 3121

Dear Ally,

Proposal: Amendment to Planning permit -to delete car stacker located on the ground floor and change the use to a residential hotel (61 rooms).
Site location: 375-377 PUNT ROAD CREMORNE

Melbourne Water reference: MWA-1162862
Council reference: PLN19/0751
Date referred: 17/01/2020

Melbourne Water, pursuant to Section 56(1) of the Planning and Environment Act 1987, does not object to the amended proposal. The conditions outlined in the planning permit regarding floor levels and basement area protection are still applicable.

Advice

To access more information regarding other services or online applications that Melbourne Water offers please visit our website.

For general development enquiries contact our Customer Service Centre on 131722.

Regards,

L Ripper

Louise Ripper
Development Planning Services

VICTORIA

Page 1

Melbourne Water ABN 81 945 386 953
990 La Trobe Street Docklands VIC 3008
PO Box 4342 Melbourne VIC 3001 Australia
T 131 722 F +61 3 9679 7099
melbournewater.com.au

Supplementary Advice:

Council officers sought further clarification on the wording of the conditions sought by Melbourne Water. They provided the following clarification on 12th May 2020.

Attachment 9 - PLN19/0751 - 375 & 377 Punt Road - Melbourne Water comments

- *I would like to keep the conditions within the amended planning permit. Although re reading them I see where you have concern, you may take out the reference to the carpark as it is being changed to conference areas. Therefore the conditions may read:*

    1. ***Finished floor levels of the ground floor must be constructed at a minimum of 3.73 metres to Australian Height Datum (AHD). The applicable flood level for the property is 3.43 metres to AHD.***
    2. ***All doors, windows, vents and openings to the basement must be constructed no lower than 3.73 metres to AHD.***

Hope this helps. Tried calling to discuss and left a message if you would like further clarification please ring back on 9679 7902. Hope you get this one out in time.

Thanks

Louise

Advice

Please email the requested information to us at DevConnect@melbournewater.com.au quoting MWA-1162862 in the subject line.

This email is sent from a notification-only email address that does not accept incoming email.

For general development enquiries contact our Customer Service Centre on 131 722.

Regards,

Louise Ripper | Planner , Development Planning Services | Melbourne Water
T: 131 722 | 990 La Trobe Street, Docklands, VIC 3008 | PO Box 4342 Melbourne VIC 3001 | melbournewater.com.au

Attachment 10 - PLN19/0751 - 375 & 377 Punt Road - Amended Acoustic Report

Marshall Day Acoustics Pty Ltd
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6 Gipps Street
Collingwood VIC 3066
Australia
T: +613 9416 1855
www.marshallday.com

Project: **375-377 PUNT ROAD CREMORNE HOTEL**

Prepared for: **Form Engineers**
Level 14 333 Collins Street
Melbourne Vic 3000

Attention: **Mr Mark Barrie**

Report No.: **Rp 001 20191168**

Document Control

Status:	Rev:	Comments	Date:	Author:	Reviewer:
Final	-	Issued as final	21/02/2020	M.Webber/E.Hui	G. Lee
	01	Minor additions per SLR review coments	20/03/2020	M.Webber	

MARSHALL DAY Acoustics

TABLE OF CONTENTS

1.0 INTRODUCTION 6
2.0 DOCUMENTS REVIEWED 7
3.0 SITE DESCRIPTION 8
3.1 Surrounding area 8
3.2 Proposed operations 9
3.3 Deliveries and Waste collection 10
3.4 Daily rail usage 10
3.5 Road traffic volumes 10
4.0 LEGISLATION AND GUIDELINES 11
4.1 Victorian Legislation 11
4.2 Guidelines 12
5.0 NOISE CONSIDERATIONS 13
5.1 Noise affecting the subject site 13
5.2 Potential noise emissions from the site 13
5.3 Relevant legislation/guidelines used 13
6.0 SITE NOISE AND VIBRATION SURVEYS 14
6.1 Background noise 14
6.2 Traffic noise 14
6.2.1 Unattended measurements 14
6.2.2 Attended measurements 15
6.3 Rail noise 17
7.4 AS2107 - Internal noise levels 19
7.5 Sleep disturbance criteria 21
8.0 BUILDING ENVELOPE DESIGN 22
9.0 NOISE FROM HOTEL ACTIVITIES 24
9.1 Typical music noise levels 24
9.2 Patron noise data 24
10.0 NOISE MODELLING 26
11.1 Mechanical plant 27
12.2 Music and patron noise control recommendations 29
12.3 Predicted noise levels 30
12.3.1 Patron noise 30

13.1 Required additions to the Noise and Amenity Action Plan 33

14.0 SUMMARY 35

MARSHALL DAY Acoustics

APPENDIX A GLOSSARY OF TERMINOLOGY

APPENDIX B PLANNING MAP

APPENDIX C LEGISLATION AND GUIDELINES

APPENDIX D NOISE MEASUREMENTS

APPENDIX E BACKGROUND NOISE LEVEL ANALYSIS

APPENDIX F DERIVATION OF NOISE LIMITS/DESIGN TARGETS

APPENDIX G PATRON NOISE DATA

1.0 INTRODUCTION

A six-storey residential building at 375 – 377 Punt Road Cremorne is currently under construction. The owners wish to repurpose the building for use as a residential hotel with a conference room, food and beverage areas, bar areas and a roof top "flexible space" and terrace.

As part of the town planning process the Responsible Authority, the City of Yarra, has requested additional information regarding acoustic issues associated with the revised proposed use. The City of Yarra letter Ref PLN19/0751 dated 13 November 2019, requires the following additional information to be provided:

2e A detailed written response to the Application Requirements at clause 22.09-4, and to further include;

i Further justification of the proposed 1am closing given this policy encourages the sale and consumption of alcohol in residential zone to cease at 8pm. This should also detail how external patron and music noise will be managed from the roof top terrace to nearby residential properties.

ii Detail how noise impacts from goods deliveries and collection of bottles will be managed given the residential interface.

iii A Noise and Amenity Action Plan.

4. An acoustic report detailing how the residential hotel rooms will be adequately protected from traffic and train noise and how residents to the rear will be affected/protected from patron and music noise from the roof terrace bar.

Form Engineers has requested that Marshall Day Acoustics prepare a Town Planning acoustic assessment report addressing the above requirements as well as any other identified noise impacts associated with the proposed development to support the Planning Permit application for the proposed hotel development.

This report provides details of relevant environmental noise criteria, an assessment of compliance, recommends mitigation measures where required and addresses the requirements of the Responsible Authority.

A glossary of acoustic terms use in this report is provided in Appendix A.

2.0 DOCUMENTS REVIEWED

The assessment has been based on floor plans and elevations as shown in the drawing package titled 191211_375 Punt Rd TP Dec (drawings 17-30) dated December 2019. The drawings reviewed are detailed below.

Drawing No.	Revision	Title
17	Y	Lower Basement Plan
18	U	Upper Basement Plan
19	R	Ground floor Plan
20	N	First Floor Plan
21	N	Second Floor Plan
22	N	Third Floor Plan
23	N	Fourth Floor Plan
24	N	Fifth Floor Plan
25	N	Sixth Floor Plan
26	N	Roof Plan
27-30	N, M	Elevations

Further, the following relevant documents have been reviewed:

- Town Planning Report prepared by Hellier McFarland ('Planning Report'), *11533P 2020-01-15 Planning Report* dated 15 January 2020
- Cumulative Impact Assessment prepared by Hellier McFarland ('CIA'), *11533P 2020-01-15 Cumulative Impact Assessment* dated 15 January 2020
- Noise & Amenity Action Plan prepared by Hellier McFarland ('NAAP'), *11533P 2020-01-15 Noise & Amenity Action Plan* dated 15 January 2020

3.0 SITE DESCRIPTION

3.1 Surrounding area

The subject site is located at 375-377 Punt Road, Cremorne and is bounded by:

- Vacant land to the north with Swan Street and the Richmond train station beyond. It is understood that this land is owned by VicRoads
- Single-storey and double-storey residential dwellings to the east
- Six-storey apartment/hotel building to the south
- Punt Road to the west with Gosch's Paddock beyond.

The nearest identified residential dwellings considered in the assessment are provided in Table 1.

Table 1: Nearest residential dwellings to subject site

Address	Location relative to subject site	Description
5 Huckerby Street	East	Double-storey dwelling
2 Rout Street	South east	Single-storey dwelling
379 Punt Road	South	Six-storey apartment/hotel building

An aerial photograph of the subject site and surrounds is provided in Figure 1.

Figure 1: Subject site and surrounds (Source: Nearmap)

The subject site is zoned General Residential (GRZ4) and the relevant planning map is provided in Appendix B.

MARSHALL DAY Acoustics

3.2 Proposed operations

The proposed hotel will include the following:

- Lower basement kitchen, store, bicycle parking, and waste management area
- Upper basement conference room, hotel food and beverage, store and amenities
- Ground floor lobby and food and beverage area
- Hotel rooms on levels 1-5
- Level 6 roof top terrace with bar and "flexible space"

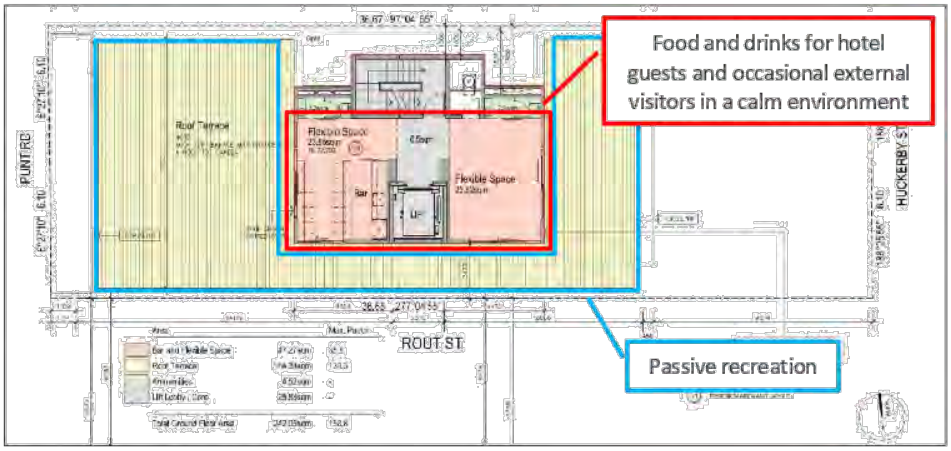
The proposed operating hours of the entertainment areas are shown in Table 2. At this stage no hotel operator has been appointed and therefore specific operational details have not been determined. In order to present an acoustic assessment for town planning purposes, types of uses in locations have been assumed based on information contained in the Planning Report. It should be noted that alternative operational scenarios are possible, and specific details should be checked by a suitably qualified and experienced acoustic consultant prior to commencement of alternate operations to those listed below.

Table 2: Operating hours

	Upper basement food and drink premises, conference room	Ground floor level food and drink premises	Roof top bar
Proposed use per Planning Report	*Food and drinks for hotel guests and occasional external visitors in a calm environment*		
Sunday to Thursday	1200 hrs to 2200 hrs	1200 hrs to 2200 hrs	1200 hrs to 2100 hrs
Friday to Saturday	1200 hrs to 2400 hrs	1200 hrs to 2400 hrs	1200 hrs to 2300 hrs

The configuration of the roof terrace, including red-line area is shown in Figure 2.

Figure 2: Roof terrace



The current red line plan does not allow for alcohol consumption in the open air roof terrace area. For noise assessment purposes it has been assumed that the open air area may be used by hotel guests for passive recreation, eg, book reading or sunbaking or may be used by smokers.

The architectural plans indicate that the maximum number of patrons in the bar/flexible space areas is 36.

3.3 Deliveries and Waste collection

Deliveries and waste collections will be made via Huckerby Street in the vicinity of the hotel drop off area as shown in Figure 3. There will be no bottle crushing on site. MDA recommend waste collection be made between 0700 hrs and 2000 hrs Monday to Saturday and 0900 hrs and 2000 hrs Sunday and public holidays.

Figure 3: Delivery/waste collection area

3.4 Daily rail usage

The development is located approximately 110 m to the south of the Richmond train station and associated rail lines (Alamein, Belgrave, Cranbourne, Frankston, Glen Waverley, Lilydale, Pakenham and Sandringham lines)

In order to assess rail noise, it is necessary to estimate the rate and duration of train passage along the rail corridor. A review of the relevant timetables indicates the following estimate of weekday activity.

Table 3: Estimated daily weekday train movements past the site

Period	Electric passenger trains		VLINE diesel passenger	Diesel freight trains
	City Inbound	City Outbound		
Day/Evening (0700 -2200hrs)	1200	1200	Data not available	Data not available
Night (2200-0700hrs)	160	160		

3.5 Road traffic volumes

Road traffic volumes around the subject site are relatively significant.

According to VicRoads' open data source, Punt Road has a two-way annual average daily traffic (AADT) estimate of 58,000 vehicles[1] and Swan Street has a two-way AADT of 19,000 vehicles.

[1] VicRoads Open Data, https://vicroadsopendata-vicroadsmaps.opendata.arcgis.com/datasets/traffic-volume, accessed 22 May 2018.

4.0 LEGISLATION AND GUIDELINES

A range of guidelines and legislation is used in Victoria to assess environmental noise. This section provides an overview of the key documents and guidelines that are applicable to the proposed development.

4.1 Victorian Legislation

A summary of the relevant Victorian legislation is provided in Table 4. Refer to Appendix C for further details.

Table 4: Relevant Victorian noise legislation

Document	Overview
Environment Protection Act 1970 (the Act)	The Act provides the overarching legislative framework for the protection of the environment in Victoria. It establishes obligations for the control of environmental noise and applies to all types of noise sources except rail operations. The legislation does not specify noise limit values, but sets out legal requirements to comply with State environment protection policies and prescribed standards.
State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1)	SEPP N-1 defines mandatory noise limits for commercial, industrial or trade premises in the Metropolitan Region of Melbourne. The limits apply to the level of noise occurring at neighbouring sensitive receivers. The noise limits are determined on the basis of land zoning and background noise levels, and are separately defined for day, evening and night periods.
State Environment Protection Policy (Control of Music Noise from Public Premises) No. N-2 (SEPP N-2)	SEPP N-2 defines mandatory noise limits for music associated with public premises in the State of Victoria, including indoor and outdoor venues. The limits apply to the level of noise occurring at neighbouring sensitive receivers. Noise limits are determined on the basis of background noise levels, and are separately defined for day, evening and night periods.
Clause 22.09 of the Yarra Planning Scheme	This clause requires the provision of an acoustic report for venues trading after 2300 hrs as well as the preparation of a Noise and Amenity Action Plan.

MARSHALL DAY Acoustics

4.2 Guidelines

A summary of relevant guidelines referenced in Victorian noise assessments is presented in Table 5 and further detail is provided in Appendix C.

Table 5: Relevant Victorian references and guidelines

Reference	Overview
Australian/New Zealand Standard AS/NZS 2107:2016 *"Acoustics - Recommended design sound levels and reverberation times for building interiors"*(AS 2107)	Provides recommendations for acceptable internal noise levels. Table 1 of AS 2107 presents the recommended internal noise levels for "houses and apartments near major roads", which is considered to be applicable to the development site.
Sleep disturbance criteria sourced from NSW Road Noise Policy 2011 (Sleep disturbance criteria)	The provisions of this document are often referred to in Victoria for general guidance on potential sleep disturbance. Based on a review of research into sleep disturbance, the NSW policy nominates maximum external night-time noise levels at noise sensitive locations which are unlikely to disturb sleep.
EPA Publication 1254 *Noise Control Guidelines* (EPA Guidelines)	Provides an overview of noise policies and legislation in Victoria for a range of different noise sources, and provides supplementary guidance for situations where there is no policy or legislation.
Marshall Day Acoustics patron noise assessment methodology (MDA design targets)	Noise predominantly related to voices of patrons in outdoor areas is not covered under any State Environment Protection Policy or general Victorian guideline. In lieu of an established state policy or criterion, MDA has developed a set of design targets which have been referenced as part of numerous planning applications and VCAT hearings for proposed external patron noise areas. The design targets are defined separately for day, evening and night periods and are determined on the basis of background noise levels. Refer to Appendix C for further detail.
Victorian Passenger Rail Infrastructure Noise Policy April 2013 (VPRINP)	Section 5 of the policy sets out the conditions under which transport bodies must apply the policy. The policy sets 'investigation thresholds' for the assessment of noise. These are noise levels, which if exceeded, indicate that noise mitigation should be considered.

5.0 NOISE CONSIDERATIONS

5.1 Noise affecting the subject site

The proposed development is subjected to noise from the following sources:

- Passenger and freight train noise from the rail line to the north
- Tram noise from Swan Street
- Traffic noise from Punt Road and Swan Street.

Vibration from the train line has not been considered as the train line is located at a sufficient distance to negate any vibration effects.

5.2 Potential noise emissions from the site

Noise from the development that may affect dwellings within the site boundary and beyond the site boundary includes:

- Centralised mechanical plant
- Waste collections and deliveries
- Music and patron noise from the entertainment facilities especially the roof bar area.

Noise transfer internally between apartments is addressed via legislative requirements in the Building Code of Australia (BCA), which are not discussed in this planning report.

5.3 Relevant legislation/guidelines used

Table 6 details the relevant legislation or guideline applicable for the assessment of each of the identified noise sources.

Table 6: Summary of key noise issues and noise criteria

Potential noise impact	Source of assessment criteria	Document status
Central plant and commercial noise	SEPP N-1	Legislation
Waste collection and deliveries	SEPP N-1	Legislation
	EPA Publication 1254	Guideline
Music noise	SEPP N-2	Legislation
Patron noise in outdoor licensed areas (in the absence of music)	Marshall Day Acoustics proposed risk assessment	Guideline – best practice
Traffic noise - vehicles	AS2107	Australian Standard
	Sleep disturbance	Industry Standard
Tram noise	Sleep disturbance	Industry Standard
Rail noise	VPRINP	Guideline
	Sleep disturbance	Industry Standard

6.0 SITE NOISE AND VIBRATION SURVEYS

The following sections detail the results of noise surveys taken in the vicinity of the site.

6.1 Background noise

The assessment criteria applicable to the development includes noise limits that are defined using background noise levels in the absence of noise associated with the operation of the subject site. Therefore, it is necessary to establish background noise levels in the vicinity of the site.

Unattended 24-hour noise measurements were taken at three locations at the subject site as follows:

ID (refer to Figure 7 in Appendix D)	Description
M1	First floor balcony at the western facade of the development with direct line of sight to Punt Road (Room 5) Measurements from this location were used to determine traffic noise levels incident on the western façade of the building exposed to Punt Road
M2	Third floor balcony at the north-eastern facade of the development with direct line of sight to Richmond station and tram and road traffic on Swan Street. The microphone was mounted approximately 3 m above the local ground surface level in order to expose the microphone to noise emitted from trains, tram and road traffic without screening from the development's balustrade Measurements from this location were used to determine traffic, tram and train noise levels incident on the northern and eastern façades of the building exposed to noise from trains visiting Richmond station, and trams and road traffic along Swan Street
M3	Roof top terrace area of the development, screened from noise associated with road, tram and rail traffic at a location representative of the nearby upper-floor apartment dwellings Measurements from this location were used to determine representative background noise levels for the determination of noise limits

Details of equipment used, monitoring locations and measured levels are provided in Appendix D.

The selection of background noise level for use in determining the applicable noise limits is dependent on the criteria being applied. The background noise level analysis and selection details are shown in Appendix E.

6.2 Traffic noise

Traffic and tram noise measurements at the site were undertaken using both continuous noise logging and attended noise measurements.

6.2.1 Unattended measurements

A fixed monitor was located on level one at the western facade of the development on the balcony of Room 5 with direct line of site to Punt Road (M1) between Thursday 6 February and Wednesday 12 February 2020.

The location had a direct line of sight to the traffic. Additional information on the measurement details are provided in Appendix D.

A summary of the measured noise levels is detailed in Table 7.

Table 7: Unattended measured traffic noise levels at measurement location M1, dB L_{Aeq}

Time period	Traffic Noise Level						
	Thurs 6 Feb	Fri 7 Feb	Sat 8 Feb	Sun 9 Feb	Mon 10 Feb	Tues 11 Feb	Wed 12 Feb
Day (0700-2200hrs)	72	72	71	70	71	71	71
Night (2200-0700hrs)	68	68	69	68	67	67	67

Noise levels are considered typical for a building situated on a busy road such as Punt Road.

Night-time maximum noise levels (as identified from the noise logger) at the measurement location from traffic pass-bys were typically 85-88 dB L_{Amax} with occasional isolated events up to 102 dB L_{Amax}.

6.2.2 Attended measurements

In addition to the unattended noise monitoring two attended traffic and tram noise measurements were undertaken on 5 February 2020 between 1315 hrs and 1330 hrs and on 13 February 2020 between 1045 hrs and 1100 hrs. These times were selected to be representative of the periods of highest traffic noise intrusion given typical traffic patterns for Punt Road and Swan Street. Noise levels measured by the unattended noise monitor confirm that the attended noise measurements are representative of the upper levels of traffic noise experienced at the facade. Short-term maximum noise levels measured in during the attended measurements represent typical maximum noise levels experienced at the facade.

Full details of the measurement locations are included in Appendix D.

The measurement results are summarised in Table 8.

Table 8: Traffic and tram noise measurement results dB

			Octave Band Centre Frequency (Hz)							
Location	Parameter	Time	63	125	250	500	1k	2k	4k	A
S1	L_{eq}	1315- 1330 hrs	75	73	70	67	68	64	58	72
	L_{max} (typical)	1315- 1330 hrs	88	94	88	79	80	73	71	85
S2	L_{eq}	1045 – 1100 hrs	74	72	70	67	68	63	57	71
	L_{max} (typical)	1045 – 1100 hrs	88	95	88	81	77	72	71	85

6.2.3 Calculation inputs

Further to the attended noise measurements, MDA has analysed noise monitor data alongside captured audio to determine the highest typical noise levels affecting the premises. Table 9 below presents noise level spectra used for the calculation of internal traffic noise levels.

Traffic noise associated with Punt Road require the most reduction to meet internal noise targets and therefore these noise levels have been used for the purpose of demonstrating predicted internal noise levels at the development.

Table 9: Spectral noise inputs for prediction of internal traffic noise levels

			Octave Band Centre Frequency (Hz)							
Location	**Parameter**	**Time**	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**A**
M1	L_{eq}	2200- 2215 hrs 06/02/2020	69	65	62	64	73	67	54	74
	L_{max} (typical)	2200- 2215 hrs 06/02/2020	92	99	99	98	98	94	86	102

6.3 Rail noise

Rail noise measurements were undertaken at the site using continuous noise logging and short-term attended noise measurements.

Attended train noise measurements were undertaken on 5 February 2020 between 1400 hrs and 1415 hrs (approximately 16 measured passenger train passes). No freight train movements occurred during the attended survey.

A fixed monitor was located on the rear balcony of level three at the north-eastern extent of the development at monitor location M2. The microphone was mounted approximately 3 m above the local ground level in order to measure noise from trains travelling via Richmond Station approximately 120 m to the north.

During the attended noise measurements, the noise environment was dominated by road traffic along Swan Street. Due to the high noise level generated by road traffic and the relatively low noise generated by the slow rail movements of trains passing through Richmond station, noise events associated with rail movements were not detectable by the operator. Audio collected during the unattended survey was reviewed alongside measured data and the upper L_{Aeq} and L_{Amax} events were found to be associated with traffic movements and not rail movements.

MDA therefore determines that sufficient attenuation of road traffic noise at the facade shall necessarily address any potential noise events associated with rail movements.

7.0 SUMMARY OF APPLICABLE NOISE LIMITS/DESIGN TARGETS

7.1 SEPP N-1

The applicable SEPP N-1 limits which will apply to noise from commercial activity, including but not limited to; air-conditioning, ventilation, exhaust and refrigeration equipment is provided in Table 10.

The full derivation of SEPP N-1 noise limits is provided in Appendix F.

Table 10: SEPP N-1 limits, dB L_{eff}

Period	Noise limit
Day	59
Evening	53
Night	47

7.2 SEPP N-2

Music noise from the development will be required to meet the SEPP N-2 limits summarised below in Table 11 and Table 12. The full derivation of SEPP N-2 noise limits is provided in Appendix F.

Table 11: SEPP N-2 day/evening noise limit L_{Aeq} dB

Description	Noise limit derivation
Day/evening period background noise level, L_{A90} *Measurement location M3* *0700 hrs to 2200 hrs* *Minimum day/evening period average*	50 dB
Plus 5 dB	+5 dB
SEPP N-2 day/evening period noise limit, L_{Aeq}	55 dB

Table 12: SEPP N-2 derived night-time noise limit, dB

Description	Octave band centre frequency, Hz						
	63	125	250	500	1000	2000	4000
Background noise level L_{90} *Measurement location M3* *2345 hrs to 2400 hrs* *10/02/2020*	49	43	41	40	41	36	24
+8 as per SEPP N-2	+8	+8	+8	+8	+8	+8	+8
Night-time SEPP N-2 noise limit, L_{10}	57	51	49	48	49	44	32

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7.3 Patron noise

Table 14 provides the patron noise design targets derived from the measured background noise levels presented in Table 13 applicable at the nearest noise sensitive areas to the south and east of the development.

Table 13: Background noise levels

Description	Background noise level
Day period background noise level, L_{A90} *Measurement location M3* *0700 hrs to 1800 hrs* *Minimum day period average*	53 dB
Evening period background noise level, L_{A90} *Measurement location M3* *1800 hrs to 2200 hrs* *Minimum evening period average*	50
Night-time period (2200-midnight closure) background noise level, L_{A90} *Measurement location M3* *2200 hrs to midnight* *Minimum period average*	48

Table 14: Patron noise design targets, L_{Aeq} dB

Description	Design target
Semi-steady noise levels, $L_{Aeq,\ 15\ minute}$	
Day (53 dB L_{A90})	63
Evening (50 dB L_{A90})	60
Night-time period (2200-midnight closure) (48 dB L_{A90})	53
Short-term maximum noise levels, L_{Amax}	
Night-time period (2200-midnight closure)	60-65 dB
Note: Background noise levels from measurement location M3	

7.4 AS2107 - Internal noise levels

Australian Standard 2107-2016 *Acoustics - Recommended design sound levels and reverberation times for building interiors* (AS2107) recommends acceptable internal noise levels. Table 15 shows the recommended internal noise levels stated in AS 2107 for "*hotels and motels near major roads*", which is applicable to this development.

Table 15: AS2107 recommended internal noise levels (major roads), dB

	Recommended internal noise level, L_{Aeq}	
Area	Satisfactory	Maximum
Sleeping areas	35	40

	Recommended internal noise level, L_{Aeq}	
Area	**Satisfactory**	**Maximum**
Washrooms and toilets	45	55
Foyers/recreation areas	45	50
Dining rooms	40	45

AS 2107 does not specify the measurement procedure to determine whether compliance has been achieved but does state the following:

> *In situations where traffic (or other) noise levels may vary widely over a 24-hour period, measurements to assess compliance with this Standard should be taken at the relevant time according to the area of occupancy or activity in the building.*

Given the above, it seems appropriate that compliance measurements for sleeping areas are made during the period between 2200-0700 hours (commonly referred to as the night period), although this does not allow for those occupants who may have a requirement to sleep during the day (e.g. airline staff).

AS2107 does not specify noise measurement/assessment duration. It is recommended that compliance generally be assessed based on the typical worst-case 15-minute L_{Aeq} noise level throughout the relevant time period (e.g. night-time for bedrooms).

7.5 Sleep disturbance criteria

Where practical, maximum noise levels of trains, trams and vehicles should also meet internal sleep disturbance criteria with windows of apartments closed.

A design target of 50-55 dB L_{Amax} has been adopted with an allowance of 1-2 events per night reaching 65-70 dB L_{Amax}. This target applies in bedrooms.

8.0 BUILDING ENVELOPE DESIGN

The hotel development is exposed to significant levels of traffic noise on the western and northern facades of the building.

As is the case for any building that is exposed to significant external noise, the design criteria will not be achieved with windows open, however, the hotel occupants have the option to close external windows and doors to significantly reduce noise intrusion.

Ventilation may be required in some rooms in order to allow the windows to remain closed. This should be addressed by the project mechanical consultant.

In general, the glazing requirements for facades overlooking Punt Road are driven by the requirement to reduce average and maximum internal levels due to traffic.

The requirements for the northern facade facing Swan Street are driven by traffic from Swan Street and Punt Road. Noise associated with rail movements were not detectable over other ambient noise sources during the attended measurements or monitor period.

Rooms have already been built and the building envelope construction is as follows:

Building element	Construction
Glazing (windows)	10 / 12 / 6 DGU (Capral fame and seals)
Glazing (sliding doors)	10 / 12 / 6 DGU (Capral frame, rails and seals)
External walls	Type S4 to apartments: Steel frame mesh façade 78 mm Speedpanel Bradford enviroseal wall breather Nom. 200mm cavity 75 mm R1.5 Bradford Glasswool partition batts 76 mm steel stud and track 1 x 13 mm standard plasterboard Type S6 to rooftop bar area: 1 x 16 mm Freeshield or Trurock Plasterboard lining 70 mm Steel Studs 50 mm R1.5 Earthwool insulation 1 x 16 mm Freeshield or Trurock Plasterboard lining 22 mm wall liner tophat 29 mm trimdeck night sky metal colour, crest fixed to top hat

Simultaneous internal and external measurements were conducted to quantify noise reduction afforded by the existing facade and glazing arrangement in Room 5, which is repeated on all facades. MDA observed gaps in the facade arrangement at this time which severely degrades the acoustic reduction provided by the building elements. A reduction of traffic noise in the order of 20 dB was observed. MDA expects that traffic noise reduction provided by the facade and glazing will improve by a minimum of 5 dB once the facade is sufficiently completed, and an additional 2-3 dB reduction is expected to be achieved once reverberation times in the room are controlled by room furnishings. A minimum 28 dB traffic noise level reduction is therefore anticipated to be achieved once construction and furnishing has been completed.

Based on the noise measurements taken at site and the improvements to be made to the existing building envelope constructions (i.e. sealing of gaps), the predicted internal levels in the hotel rooms are shown below. MDA notes that the hotel rooms do not include foyers, living areas or recreation areas. Further, washrooms and toilets do not include external windows and are therefore not directly exposed to noise from external sources.

Table 16 below presents internal noise levels due to transport noise.

Table 16: Internal transport noise levels dB L_{Aeq}

	Predicted internal level	
Area	**L_{eq}**	**L_{max}**
Sleeping areas (night-time 2200-0700hrs)	Up to 39 dB	typically 55-60 dB occasional events up to 69 dB
Washrooms and toilets	Negligible	Negligible

The predicted noise levels are within the range of the L_{Aeq} criteria per AS2107.

Maximum noise levels will exceed the proposed design target.

As the hotel will cater to transient guests rather than long term residents, there may be greater tolerance to short-term maximum noise levels from night-time transport noise. In addition, given the location alongside a busy major road it is not unreasonable to expect that guests may anticipate some traffic noise intrusion from Punt Road.

9.0 NOISE FROM HOTEL ACTIVITIES

The noise considerations associated with the operation of the hotel which are assessed in this report include:

- Music noise from the venue
- Noise from patrons at the venue
- Noise from deliveries and waste collection.

9.1 Typical music noise levels

At this stage no operator for the venue has been appointed and therefore specific operational parameters are not yet available. For the purpose of the town planning assessment, MDA has conducted a predictive noise assessment based on noise levels from our database of measurements and information presented in the Planning Report.

Music noise levels used for the assessment are presented in Table 17. No acoustic provision has been made for use of the external area as a licensed premises i.e. no patrons or music to be played in the outdoor areas as per the red line plan and as discussed in the Planning Report. Further, no acoustic provision has been made for amplified live music in any space as discussed in the Planning Report.

A background music level is defined as a level that enables patrons to conduct a conversation at a distance of 600 mm without having to raise their voice to a substantial degree and was defined in VCAT decision Whiting v Hosier Bar Pty Ltd (Occupational and Business) [2005] VCAT 814.

Table 17: Typical internal reverberant music noise levels, dB L_{oct10}

	Octave band mid frequency								
Description	**A**	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**Hz**
Background music noise level	67	65	65	65	60	60	60	60	dB

9.2 Patron noise data

Food and beverage areas in the basement and ground floor are fully enclosed within the building and patron noise will be sufficiently attenuated by the building envelope construction.

The roof top bar/flexible space includes openable doors/windows to an open roof terrace area and is adjacent to nearby residential apartments.

The roof terrace area is unlicensed and is likely to be used for passive recreation purposes. Patron noise assessments are normally performed for outdoor licensed areas. As such the patron noise assessment for the roof top is limited to the bar and flexible space areas.

The Planning Report states that the intended purpose of the licenced areas of the premises is to provide food and drinks for hotel guests and occasional external visitors in a calm environment, and therefore MDA considers it conservative to assess patron noise based on 'taverns with significant food offerings' due to the inclusion of food at the premises, the stated calm environment of the spaces and the limited patronage expected. These noise levels are considered a worst-case scenario and therefore compliance with these noise levels is a strong predictor that there is low risk of patron noise associated with the development causing nuisance to the surrounding dwellings.

The patron noise input data used in the noise modeling is provided in Table 18. More information on the derivation of the noise data is attached in Appendix G.

Table 18: Patron noise model input data, dB

Area (noise type)	Maximum number of patrons	Sound power level for patron area, L_w		Comments
		Average dB L_{Aeq}	Maximum dB L_{Amax}	
Bar/flexible space	36	94	107	Derived from 'taverns with significant food offerings'

10.0 NOISE MODELLING

To predict noise levels to nearby neighbouring residences, the following factors have been considered:

- The amount of noise being generated within the venue
- The distance between the sources and receivers
- The presence of obstacles such as buildings or screens that obstruct the noise path
- The ground between the source and receiver
- The presence of hard reflective surfaces that may enable additional noise paths.

A 3-dimensional digital model of the venue and surrounding built environment has been created using SoundPLAN proprietary modelling software (version 8.1). This model has been used to predict music and patron noise to the nearest noise sensitive receivers.

Geometry data for the model has been sourced from public aerial photography, visual inspections of the area, and building heights defined by site inspection and the town planning drawings. The geometries in the model are simplified representations of the built environment that have been configured to a level of detail that is appropriate for noise calculation purposes.

The SoundPLAN digital model has been used to calculate noise levels using the International Standard *ISO 9613-2: 1996 Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation* (ISO 9613). ISO 9613 is a general environmental noise calculation standard that has been used extensively throughout Australia, New Zealand, and Europe since its publication in 1996.

The implementation of ISO 9613 within proprietary noise modelling software enables multiple sound transmission paths, including reflected and screened paths, to be accounted for in the calculated noise levels. While atmospheric effects are expected to have a negligible effect on the transmission of sound from the venue to neighbouring sensitive receiver locations, it is noted that the ISO 9613 predicts noise levels for meteorological conditions which favour the propagation of noise.

11.0 SEPP N-1 ASSESSMENT

11.1 Mechanical plant

On the basis that plant and equipment may operate during any period, noise from the site must comply with the SEPP N-1 most stringent night-time limit of 47 dB L_{eff}.

At this stage detailed information regarding mechanical services plant and equipment selections and specific layout is not available, and therefore a quantitative assessment of mechanical services noise cannot be conducted. MDA has consulted the project mechanical services engineer and has been notified of the following:

- Exhaust fans for the basement kitchen exhaust will be in-line type fans (not cowl-mounted), which will allow ample opportunity for attenuation prior to environmental noise emissions
- Condensers/compressors are intended to be located either at ground floor or in the dead floor space with ventilation provided at the northern extent of the development.

MDA provides the following guidance for the mechanical services engineer to assist with equipment selection based on mechanical services duct terminations and ventilation louvers as indicated in Figure 4 and Figure 5. Additional mechanical plant items may be included provided their noise level and cumulative impact is assessed when sufficient detail is available.

Location	Maximum sound power level at opening
Roof top exhaust	97 dB
Compressor/condenser ventilation louvre	90 L_w/m^2 dB

Figure 4: Roof level plan

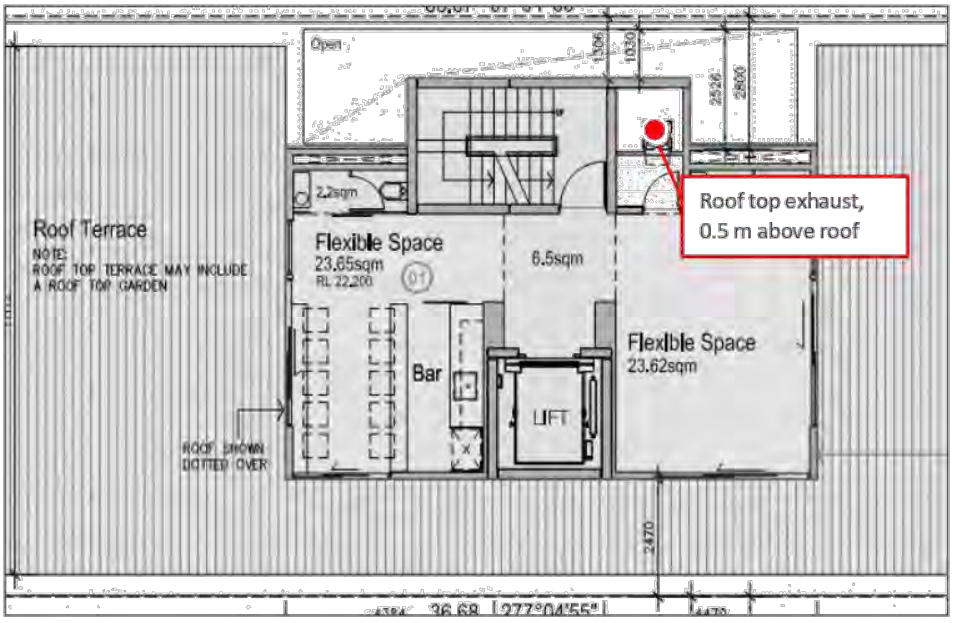
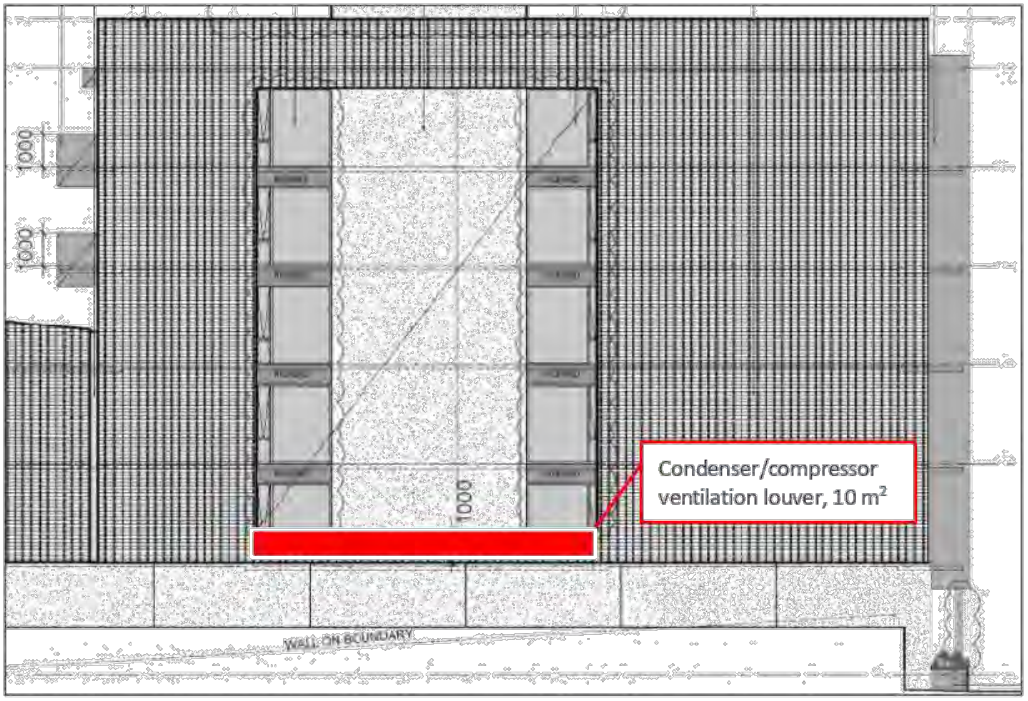


Figure 5: North elevation



Generally, additional noise control for mechanical services equipment can be introduced via the installation of proprietary acoustic measures such as attenuators, enclosures and barriers if required.

The requirement to achieve compliance with SEPP N-1 can be included as part of a planning permit condition and MDA recommends a quantitative acoustic assessment of mechanical services noise impacts is conducted by a suitably qualified acoustic consultant once sufficient detail is available.

11.2 Deliveries and waste collection

Deliveries and waste collections will be made on Huckerby Street. In order to reduce the possibility of noise impact to the neighbouring residential dwelling, it is recommended that the schedules and practices for waste collections and deliveries as detailed in EPA 1254 be adopted. The details of the schedule are provided in Appendix C.

12.0 MUSIC AND PATRON NOISE ASSESSMENT

12.1 Internal music

For music played internally, the sound insulation provided by the building envelope is expected to provide sufficient noise reduction to allow the SEPP N-2 noise limits to be achieved provided that music noise levels are similar to those shown for low background music in Table 17 (Section 9.1). It is understood that the proposal is for background music only to be played in internal areas as discussed in the Planning Report.

Consideration could be given to installation of a music noise limiter within the venue to ensure continuing compliance with SEPP N-2, and a music limiter specification may be developed once details of the sound system to be installed are known. MDA notes that such a noise limiting system is typically more appropriate for large-scale or high-risk venues and not considered to be immediately necessary for a small development with no history of noise nuisance.

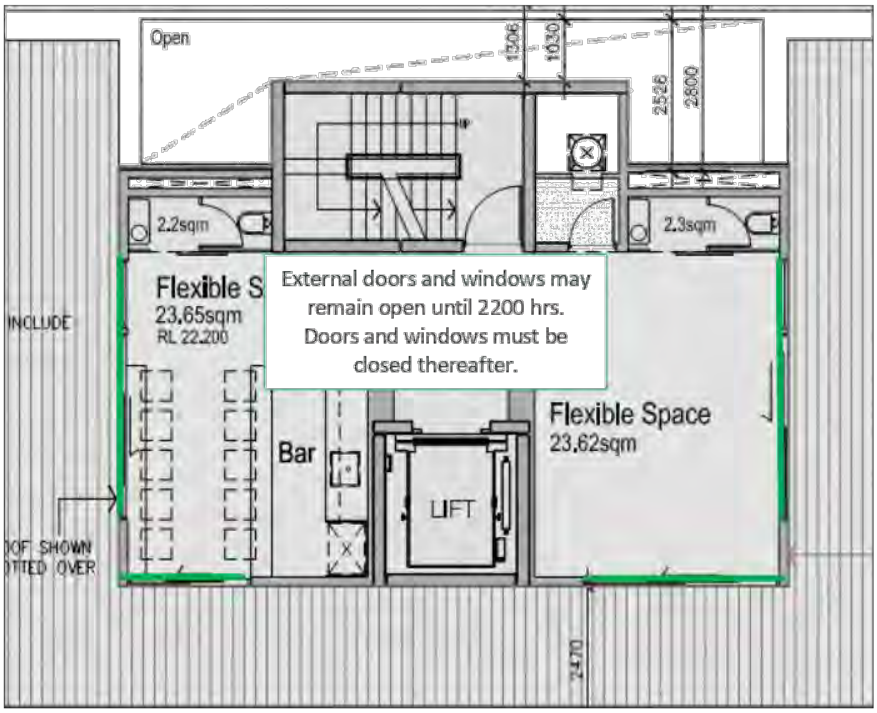
12.2 Music and patron noise control recommendations

A predictive music noise assessment has been conducted based on noise levels presented in Table 17 and Table 18. MDA recommends the following noise control measures based on our predictive noise assessment:

Roof top bar

- Music should be restricted to background music noise levels per Table 17 in Section 9.1. Should the operator wish to incorporate amplified or live music of any kind a specific acoustic assessment shall be required prior to commencement of such operations
- During the day-time and evening periods (0700 hrs to 2200 hrs) external doors and windows may be open
- During the night-time period (2200 hrs until closing at midnight) all external windows and doors must remain closed
- The requirement for bar staff to proactively monitor the behaviour of bar patrons should be included in the management plan.

Figure 6: Roof top bar



Roof terrace area (unlicensed)

At this stage the open air roof terrace area is unlicensed and is likely to be used for passive recreation purposes. The use of this area can be controlled by appropriate operating hours and educating hotel guests on appropriate behaviour. It is anticipated that under these operating conditions, noise from this area is unlikely to be significant.

As a matter of best practice, MDA recommends that access to the outdoor roof terrace is restricted to the day and evening periods, and closure of the outdoor roof terrace during the night-time period (after 2200 hrs).

If the area becomes licensed in the future then a noise assessment and additional noise mitigation treatments may be required.

12.3 Predicted noise levels

12.3.1 Patron noise

MDA has assessed patron noise in the following scenarios presented in Table 19 based on noise levels presented in Table 17.

Table 19: Patron noise scenarios

Time period	Scenario
Day (0700 hrs to 1800 hrs) Evening (1800 hrs to 2200 hrs)	36 patrons with 'taverns with significant food offerings' noise levels located in the roof top bar area (not the eastern flexible space) All external windows and doors open

Time period	Scenario
Night (2200 hrs to midnight closure)	36 patrons with 'taverns with significant food offerings' noise levels located in the roof top bar area (not the eastern flexible space) All external doors and windows closed except for access.

The predicted patron noise levels to the nearest affected noise-sensitive areas are provided in Table 20.

Table 20: Predicted patron noise levels

Receiver	Predicted noise level	
	L_{Aeq}	L_{Amax}
Daytime and evening		
379 Punt Road (apartments at rear)	62	-
6 Huckerby Street	39	-
2 Rout Street	43	-
Night-time (all external windows closed)		
379 Punt Road (apartments at rear)	41	<53
6 Huckerby Street	<25	<53
2 Rout Street	<25	<53

12.4 Risk assessment

The patron noise assessment considers the risk of disturbance to nearby noise sensitive areas. In practice the risk of disturbance is dependent on a number of factors including the following:

- the time periods when the patron noise occurs
- the range of variation in patron noise levels
- the regularity of elevated patron noise levels
- the characteristics of the noise
- broader factors relating to other aspects of the venue, i.e. is the venue well managed, the reputation of the venue, the demographic the venue attracts.

The MDA risk assessment is based on investigating the possibility for excess of the predicted noise levels over the design targets. The risk assessment matrix and associated factors are explained in Appendix C and the risk assessment matrix is reproduced below in Table 21. Note that the risk assessment is most typically applied for outdoor licensed areas (not semi-enclosed/enclosed as is the case for the roof top bar/flexible space), and therefore the application of the risk assessment to the current proposal is considered conservative.

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Table 21: Interpretation of patron noise assessment results

Predicted or measured patron noise level	Interpretation
Below the design target	There is a negligible or very low risk of patron noise disturbance associated with the outdoor area.
Above the design target level by up to 2 dB	There is a low risk of patron noise disturbance associated with the outdoor area.
Above the design target level by 3 to 5 dB	There is a low to moderate risk of patron noise disturbance associated with the outdoor area. Potential investigation measures include: Proposals: Assess the proposal once it is operating, ensuring that a NAAP has been properly prepared and implemented. Depending on the results of the above investigations, it may still be necessary to adopt additional managerial controls or retrofit design-based/physical controls.
Above the design target level by 5 to 8 dB	There is a moderate to high risk of patron noise disturbance associated with the outdoor area. Potential investigation measures include additional design-based/physical controls, and/or further managerial controls.
Above the design target level more than 8 dB	There is a high to very high risk of patron noise disturbance associated with the outdoor area. Potential investigation measures include significant additional design-based/physical controls and/or significant changes to the operation.

In accordance with the risk assessment matrix for patron noise as shown in Table 21, operation of the premises windows and doors of the rooftop bar and flexible area closed after 2200 hrs will have negligible to low risk of causing disturbance.

13.0 NOISE AND AMENITY ACTION PLAN

A Noise and Amenity Action Plan has been prepared for this venue and includes the following items:

Identification of all noise sources

The following items have been identified as the major noise sources at the premises.

Table 22: Summary of noise sources and relevant criteria

Potential noise impact	Source of assessment criteria	Document status
Mechanical services noise	SEPP N-1	Legislation
Music noise and associated crowd noise	SEPP N-2	Legislation
Patron noise in the absence of music	MDA Patron Noise Criterion	Guideline
Deliveries and waste collections	EPA Guideline 1254	Guideline

Procedures to be undertaken by staff in the event of a complaint

The following text is included in the Noise and Amenity Action Plan provided to MDA and is considered sufficient for a premises of this type:

Procedures to be undertaken by staff in the event of complaints by a member of the public, the Victoria Police, an 'authorised officer' of Council or an officer of Liquor Licensing Victoria

A manager or acting manager will be on the premises during all operating hours to receive and deal with any possible complaints. Entry to the premises will be made freely available during all operating hours, to a member of the Victoria Police, an 'authorised officer' of the Responsible Authority or an officer of Liquor Licensing Victoria, to carry out any investigations associated with the sale or consumption of alcohol on the site.

The proprietor or manager will be responsible for ensuring that to their best endeavours no disturbance occurs or emanates from the land which would be likely to cause a nuisance to adjoining occupiers or cause detriment to the amenity of the neighbourhood. Management will retain a logbook of complaints or incidents for review.

There will be a complaints register permanently located under the front counter where any complaints are recorded as soon as they are known. The Managers details will be visible on the front of the register and will aim to action/rectify any issues within 24 hours from the time the complaint is known.

13.1 Required additions to the Noise and Amenity Action Plan

In addition to the information in the current Noise and Amenity Action Plan, the following information should be included:

Operational controls related to the venue

- The number of patrons allowed within each licenced area of the premises
- Details of how background music noise levels will be maintained
- Details on venue policies relating to Responsible Service of Alcohol
- Details of signage installation requesting patrons respect the amenity of the neighbourhood.

Measures to be undertaken to address the noise sources

- Recommendations provided in Section 12.2 of this report

- Music noise must be limited to background levels

Patron noise, in the absence of music and crowd noise, shall include the following managerial controls:

- Closure of operable elements as discussed in Section 12.2 of this report
- Closure of outdoor roof terrace area to hotel guests and bar patrons after 2200 hrs daily
- Advising patrons to take account of the needs of local residents for peace and quiet during the night by displaying a prominent note on all menus and drink lists, at the main exit points, with the words to the effect "Please respect our neighbours and leave the area quietly, especially if leaving by car from a residential street" to the satisfaction of the Responsible Authority

Deliveries and waste vehicle collections are controlled by limiting the times of operations to those recommended in EPA publication 1254, that is, during daytime hours only.

MDA has provided in-principal guidance on mechanical services plant and equipment for the site based on the limited information available at town planning stage including specification of maximum sound power levels at outlets based on information provided by the project mechanical services engineer. Details of proposed mechanical services plant and equipment should be assessed by a suitably qualified and experienced acoustic consultant once sufficient design detail is available.

14.0 SUMMARY

MDA has conducted an acoustic assessment for the proposed residential hotel with associated food and beverage offerings. The assessment comprised the following:

- Prediction of internal noise levels due to nearby road, rail and tram traffic based on attended noise measurements and unattended long term noise monitoring and assessment against AS2107 internal noise goals and benchmark sleep disturbance criteria. MDA found that the noise reduction provided by the facade (once gaps are sealed and furnishings are installed within the room) shall provide sufficient acoustic amenity reasonably expected by guests lodging at a location nearby a busy road, tram and rail line.
- Assessment of music and patron noise to surrounding noise-sensitive areas against SEPP N-2 and MDA benchmark risk assessment criteria. MDA found that noise emissions associated with background music and patrons is predicted to comply with SEPP N-2 and presents negligible to low risk of disturbance to surrounding noise sensitive receivers provided the recommendations in this report are implemented
- Prediction of mechanical services plant and equipment noise based on the preliminary information available from the mechanical services engineers at this stage. MDA has specified maximum sound power levels at the relevant outlet/inlets to assist with equipment selections and system design. MDA recommends that a thorough quantitative assessment of mechanical services noise is conducted by a suitably qualified acoustic consultant once sufficient mechanical services design detail is available.

APPENDIX A GLOSSARY OF TERMINOLOGY

A-weighting	The process by which noise levels are corrected to account for the frequency response of the human ear.
dB	Decibel The unit of sound level.
Frequency	The number of pressure fluctuation cycles per second of a sound wave. Measured in units of Hertz (Hz).
Hertz (Hz)	Vibration can occur over a range of frequencies extending from the very low, such as the rumble of thunder, up to the very high such as the crash of cymbals. The frequency of vibration and sound is measured in hertz (Hz). Once hertz is one cycle per second. Structural Vibration is generally measured over the frequency range from 1 Hz to 500 Hz (0.5 kHz).
$L_{A10\,(t)}$	The A-weighted noise level equalled or exceeded for 10% of the measurement period. This is commonly used when describing traffic noise.
$L_{A90\,(t)}$	The A-weighted noise level equalled or exceeded for 90% of the measurement period. This is commonly referred to as the background noise level.
$L_{Aeq\,(t)}$	The equivalent continuous (time-averaged) A-weighted sound level. This is commonly referred to as the average noise level.
L_{Amax}	The A-weighted maximum noise level. The highest noise level which occurs during the measurement period.
L_{eff}	The effective noise level of commercial or industrial noise determined in accordance with *State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1* (SEPP N-1). This is the L_{Aeq} noise level over a half-hour period, adjusted for the character of the noise. Adjustments are made for tonality, intermittency and impulsiveness.
Octave band	Sound, which can occur over a range of frequencies, may be divided into octave bands for analysis. The audible frequency range is generally divided into 7 octave bands. The octave band frequencies are 63 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz and 4 kHz.
Rw	Weighted Sound Reduction Index A single number rating of the sound insulation performance of a specific building element. Rw is measured in a laboratory. Rw is commonly used by manufacturers to describe the sound insulation performance of building elements such as plasterboard and concrete.
Sound Insulation	When sound hits a surface, some of the sound energy travels through the material. 'Sound insulation' refers to ability of a material to stop sound travelling through it.

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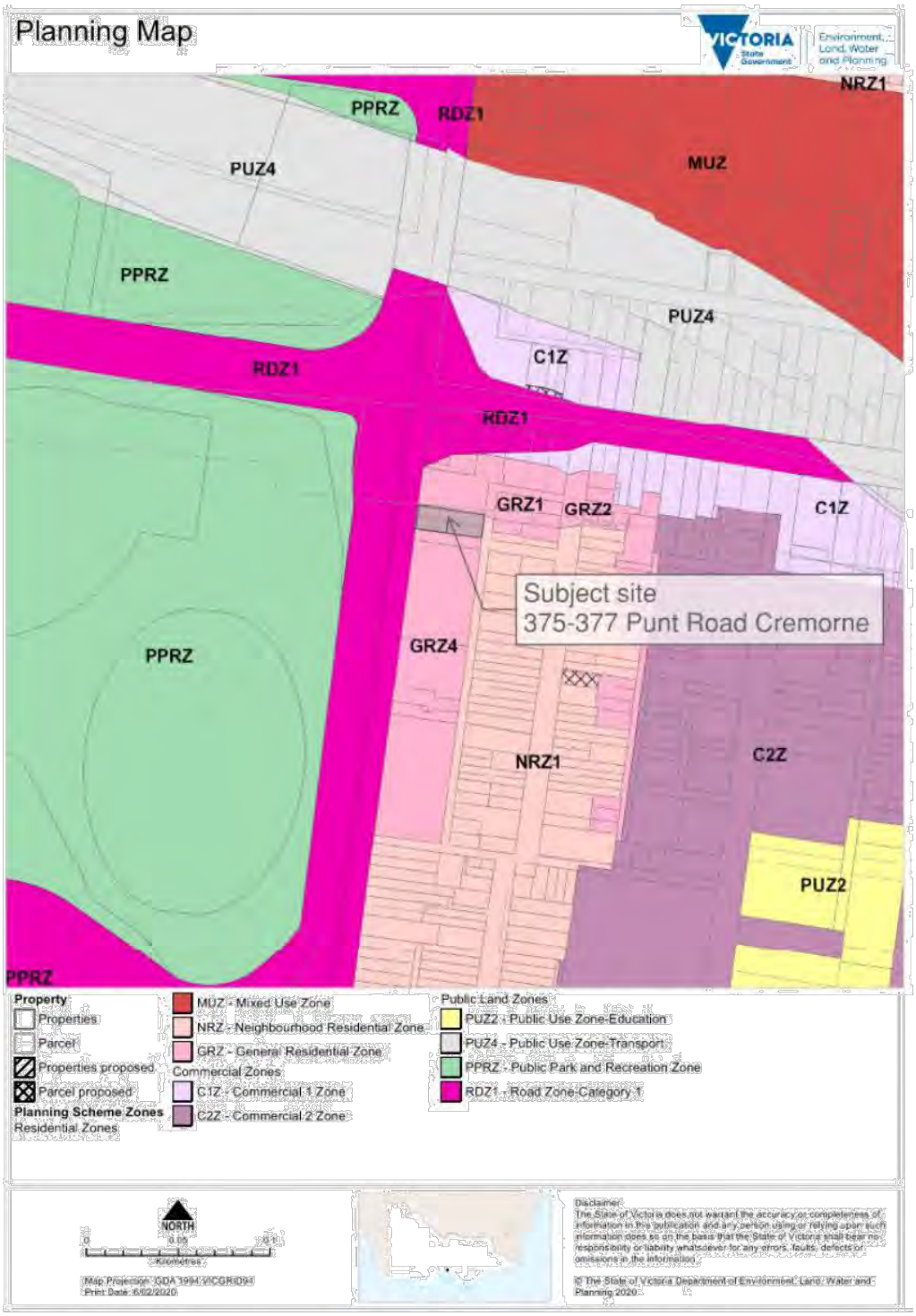
APPENDIX B PLANNING MAP



APPENDIX C LEGISLATION AND GUIDELINES

C1 SEPP N-1

C1.1 Application

State *Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1* (SEPP N-1) sets noise limits that apply to commercial, industrial and trade premises within the Melbourne metropolitan region. Compliance with SEPP N-1 is mandatory under section 46 of the Environment Protection Act 1970.

SEPP N-1 defines a 'commercial, industrial and trade premises' as:

> *any premises except:*
>
> *(a) residential premises as defined in section 48A of the [Environment Protection] Act;*
>
> *(b) a street or road, including every carriageway, footpath, reservation and traffic island on any street or road;*
>
> *(c) a tram, light rail or railway line not being a siding, marshalling yard or maintenance depot of any tram, light rail or railway line; and*
>
> *(d) [land situated at Luna Park, St Kilda].*

Section 48A of the Act defines residential premises as:

> *any building or part of a building used as or for the purposes of a private residence or residential flat.*

C1.2 Assessment methodology

SEPP N-1 is a policy and technical document. The Policy prescribes the methodology and measurement procedure used to determine applicable noise limits and assessment of compliance.

The Policy requires that proposed commercial premises be designed to comply with SEPP N-1 noise limits. Clause 16 of the Policy states:

> *Where it is planned to develop new commercial, industrial or trade premises, the premises shall be designed so that the noise emissions do not exceed the noise limits*

Further, the occupier of commercial, industrial or trade premises has an ongoing obligation to meet the SEPP N-1 noise limits. Clause 15 of the Policy states:

> *where noise emissions from existing commercial, industrial or trade premises exceed the requirements set out in the Policy, steps shall be taken by the occupier to reduce the level of these noise emissions to, or below, the relevant Policy noise limits.*

SEPP N-1 defines a 'noise sensitive area' as an area of land within 10m outside the external walls of:

- *a dwelling or residential building*
- *a dormitory, ward or bedroom of a caretaker's house, hospital, hotel, institutional home, motel, reformative institution, tourist establishment or work release hostel.*

The assessment of noise from the subject site under SEPP N-1 is based on the calculation of a noise limit at a receiver position, taking into account a zoning noise level derived from the land zoning types in the surrounding area and the background noise level.

Once a noise limit is established, the noise level (LAeq) due to the commercial premises is measured or predicted. If necessary, the LAeq noise level is adjusted for noise character and duration to give the effective noise level (Leff). If the Leff level exceeds the noise limit, then remedial action is required.

SEPP N-1 defines the time periods provided in Table 23.

Table 23: SEPP N-1 time periods

Period	Day	Time
Day	Monday-Friday	0700-1800 hrs
	Saturday	0700-1300 hrs
Evening	Monday-Friday	1800-2200 hrs
	Saturday	1300-2200 hrs
	Sunday/Public Holidays	0700-2200 hrs
Night	Monday-Sunday/Public Holidays	2200-0700 hrs

C1.3 Calculation of noise limits

SEPP N-1 noise limits are calculated taking into account land 'zoning types' within a 70 m and 200 m radius of a noise sensitive building. Zoning types are categorised as type 1, 2 or 3.[2] A prescribed formula is used to calculate a corresponding Zoning Level. In general, zone type designations are as follows.

- areas such as residential, rural and open space are type 1;
- areas such as commercial, business and light industry are type 2; and
- areas such as general industry and major roads are type 3.

Greater areas of type 2 and 3 land within a 200 m radius of a noise sensitive site result in higher Zoning Levels than a site with respectively larger areas of type 1 land.

The SEPP N-1 Noise Limit is equal to the 'zoning level' unless the background level at the noise sensitive site is categorised as low or high according to Clause B3 of the Policy. If the background level is low or high, the Noise Limit is calculated from a formula taking into account the Zoning Level and the Background Level.

The derivation of noise limits is shown in Appendix F.

[2] EPA Publication no.: 316a, 17 February 2000, *Designation of Types of Zones and Reservations in the Metropolitan Region Planning Schemes for the Purposes of State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1* <http://www.epa.vic.gov.au/our-work/publications/publication/2000/february/316a>

C2 SEPP N-2

Music noise from entertainment venues is controlled by *State Environment Protection Policy (Control of Music Noise from Public Premises) No. N-2* (SEPP N-2). Compliance with SEPP N-2 is mandatory under section 46 of the Environment Protection Act 1970.

Clause 20 of SEPP N-2 provides that:

> *Where the level of music noise from indoor or outdoor venues exceeds the noise limit, steps shall be taken by the occupier to reduce those levels to, or below, the noise limit.*

SEPP N-2 sets noise limits that must be achieved in a 'noise sensitive area'. The Policy defines a noise sensitive area as:

> *(a) that part of the land within the apparent boundaries of any piece of land which is within a distance of 10 metres outside the external walls of any of the following buildings:*
>
> - *Dwelling (except Caretaker's House), [or] Residential Building.*
>
> *(b) that part of the land within the apparent boundaries of any piece of land on which is situated any of the following buildings which is within a distance of 10 metres outside the external walls of any dormitory, ward or bedroom of such buildings:*
>
> - *Caretaker's house, Hospital, Hotel, Institutional Home Motel, Reformative Institution, Tourist Establishment, Work Release Hostel.*

For indoor venues, SEPP N-2 sets noise limits as shown in Table 24.

Table 24: SEPP N-2 criteria (music on more than 3 nights per week)

Time period		Noise limit
Day/Evening	Saturday 1000 – 2200 hrs Sunday 1200 – 2100 hrs Other 0900 - 2200 hrs	Music noise (L_{Aeq}) not permitted to exceed background noise (L_{A90}) plus 5dB
Night	Saturday 2200 – 1200 hrs Sunday 2100 – 0900 hrs Other 2200 - 0900 hrs	Music noise (L_{OCT10}) is not permitted to exceed the background noise level (L_{OCT90}) by more than 8dB in any octave band (63Hz-4kHz) at a noise-sensitive area

The derivation of SEPP N-2 music noise limit is provided in Appendix F.

C3 Industrial Waste Collection

EPA (Vic) publication no.: 1254, *Noise Control Guidelines* (Guidelines) provides the following recommendations for industrial waste collections:

- Refuse bins should be located at sites that provide minimal annoyance to residential premises
- Compaction should be carried out while the vehicle is moving
- Bottles should not be broken up at the collection site
- Routes which service predominantly residential areas should be altered regularly to reduce early morning disturbances
- Noisy verbal communication between operators should be avoided where possible.

The Guidelines recommend that collections should be restricted to the following times:

One collection per week

6:30am-8pm Monday to Saturday

9am-8pm Sunday and Public Holidays

Two or more collections per week

7am-8pm Monday to Saturday

9am-8pm Sunday and Public Holidays.

It is recommended that waste disposal activities adhere to the above guidelines and procedures.

C4 Deliveries

EPA (Vic) publication no.: 1254, *Noise Control Guidelines* states the following concerning store deliveries:

Where a residential area will be impacted by noise from deliveries, the deliveries should be inaudible in a habitable room of any residential premises (regardless of whether any door or window giving access to the room is open) outside the hours contained in the schedule

Schedule: Deliveries to shops, supermarkets and service stations

7am-10pm Monday to Saturday

9am-10pm Sunday and Public Holidays.

C5 Patron Noise

Noise from voices of patrons outdoors is not covered under any State Environment Protection Policy or general Victorian guideline.

There has been extensive discussion between members of the Association of Australian Acoustical Consultants (AAAC) in regards to suitable criteria but consensus between members has not yet been reached.

In lieu of an established state policy or criterion, MDA has developed a set of design targets which have been referenced as part of numerous planning applications and VCAT hearings for proposed external patron noise areas.

The structure of the patron noise design targets is summarised in Table 25.

Table 25: Recommended design targets for night-time patrons

Description	Design Target	Purpose
Semi-steady noise levels - L_{Aeq}	Day Period - 50 dB or background noise (L_{A90}) + 10 dB, whichever is higher Evening Period - 45 dB or background noise (L_{A90}) + 10 dB, whichever is higher Night Period - 40 dB or background noise (L_{A90}) + 5 dB, whichever is higher	Amenity protection
Short-term maximum noise levels L_{Amax}	60-65 dB	Sleep disturbance protection

For a theoretical assessment of a venue, the purpose of the proposed patron noise design targets is not to provide an absolute limit but to provide an indication of whether a venue has the potential to cause an unreasonable impact.

It is difficult to propose an absolute limit because unlike other noise sources (e.g. mechanical equipment), there is a large variation in patron noise and this variation is not always linked to the number of patrons.

The results of the analysis are interpreted as follows:

Table 26: Interpretation of patron noise assessment results

Predicted or measured patron noise level	Interpretation
Below the design target	There is a negligible or very low risk of patron noise disturbance associated with the outdoor area.
Above the design target level by up to 2 dB	There is a low risk of patron noise disturbance associated with the outdoor area.
Above the design target level by 3 to 5 dB	There is a low to moderate risk of patron noise disturbance associated with the outdoor area. Potential investigation measures include: Proposals: Assess the proposal once it is operating, ensuring that a NAAP has been properly prepared and implemented. Depending on the results of the above investigations, it may still be necessary to adopt additional managerial controls or retrofit design-based/physical controls.
Above the design target level by 5 to 8 dB	There is a moderate to high risk of patron noise disturbance associated with the outdoor area. Potential investigation measures include additional design-based/physical controls, and/or further managerial controls.
Above the design target level more than 8 dB	There is a high to very high risk of patron noise disturbance associated with the outdoor area. Potential investigation measures include significant additional design-based/physical controls and/or significant changes to the operation.

C6 AS2107 - Internal noise levels

Recommended internal noise levels for spaces of varying usage, applicable to semi-continuous sources such as road traffic, are provided in Australian Standard AS 2107:2016 *"Acoustics - Recommended design sound levels and reverberation times for building interiors"* (AS2107).

Table 27 shows the recommended internal design sound levels stated in AS2107 for *"houses and apartments in inner city areas or entertainment districts or near major roads"*, which is considered to be applicable to the proposed development.

Table 27: AS2107 recommended internal noise levels, L_{Aeq} dB

Area	Recommended design sound level range
Living areas	35-45
Sleeping areas	35-40
Work areas	35-45
Apartment common areas (eg, lobbies)	45-50

Compliance with the lower level is preferred, but compliance with the maximum noise level is considered to be acceptable.

AS2107 does not specify the measurement procedure to determine whether compliance has been achieved but does state the following:

In situations where traffic (or other) noise levels may vary widely over a 24-hour period, measurements to assess compliance with this Standard should be taken at the relevant time according to the area of occupancy or activity in the building.

Given the above, it seems appropriate for compliance measurements for bedrooms to be made during the period between 2200-0700hrs (commonly referred to as the night period), although this does not allow for those occupants who may be shift workers or such like that may have a requirement to sleep during the day. For living and dining rooms, the compliance measurement could be made during the period between 0700-2200hrs (commonly referred to as the day/evening period).

Further, AS2107 does not specify the noise measurement duration. It is recommended that compliance generally be assessed based on the typical worst-case 15-minute L_{Aeq} noise level throughout the relevant time period (eg, night-time for bedrooms).

C7 Sleep Disturbance

The NSW Road Noise Policy 2011 produced by the NSW EPA, provides guidance on potential for sleep disturbance. While the Policy applies strictly only in NSW, the provisions of the document are often referred to in Victoria for general guidance on potential sleep disturbance.

The NSW policy notes that from the research on sleep disturbance to date it can be concluded that:

- *Maximum internal noise levels below 50–55dB L_{Amax} are unlikely to awaken people from sleep*
- *One or two noise events per night, with maximum internal noise levels of 65–70dB L_{Amax}, are not likely to affect health and wellbeing significantly.*

It is noted that the maximum internal noise levels are prescribed for instances where windows to an internal area would be open. It is accepted that internal noise levels in conventional dwellings with the windows open are generally 10 dB lower than external noise levels.

Based on these NSW EPA findings, a noise level of 60-65 dB L_{Amax} outside an open bedroom window would be unlikely to cause awakening reactions.

C8 Waste collection

EPA Publication *1254 Noise Control Guidelines* provides the following recommendations for industrial waste collections:

- Refuse bins should be located at sites that provide minimal annoyance to residential premises
- Compaction should be carried out while the vehicle is moving
- Bottles should not be broken up at the collection site
- Routes which service predominantly residential areas should be altered regularly to reduce early morning disturbances
- Noisy verbal communication between operators should be avoided where possible.

The following schedule of acceptable times for waste collection is also provided in the *EPA Noise Control* Guidelines:

One collection per week

6:30am-8pm Monday to Saturday

9am-8pm Sunday and public holidays

Two or more collections per week

7am-8pm Monday to Saturday

9am-8pm Sunday and public holidays.

It is recommended that waste disposal activities adhere to the above guidelines and procedures.

C9 Deliveries

EPA (Vic) publication no.: 1254, *Noise Control Guidelines* states the following concerning store deliveries:

Where *a residential area will be impacted by noise from deliveries, the deliveries should be inaudible in a habitable room of any residential premises (regardless of whether any door or window giving access to the room is open) outside the hours contained in the schedule*

Schedule: Deliveries to shops, supermarkets & service stations

- *7 am-10 pm Monday to Saturday*
- *9 am-10 pm Sundays and Public Holidays.*

C10 Railway noise

The Victorian Passenger Rail Infrastructure Noise Policy (VPRINP) was released in April 2013. Section 5 of the policy sets out the conditions under which transport bodies must apply the policy.

The policy sets 'investigation thresholds' for the assessment of noise. These are noise levels, which if exceeded, indicate that noise mitigation should be considered. It states that:

In considering changing land use near an existing passenger rail corridor, transport bodies and planning authorities should consider the receivers set out in Table B in Attachment 2. Transport bodies and planning authorities should consider whether the noise level produced at these receivers will exceed the investigation thresholds for the periods specified in Table B in Attachment 2. [Table B of Attachment 2 is reproduced below as Table 28 in this report.]

If an assessment shows the investigation thresholds are not exceeded, noise impacts should be considered a secondary matter. This means no further action need be considered under this policy.

The investigation thresholds are defined in terms of:

- $L_{Aeq,16h}$ – equivalent continuous daytime (0600-2200hrs) noise level
- $L_{Aeq,8h}$ – equivalent continuous night-time (2200-0600hrs) noise level
- L_{Amax} – maximum noise level.

Investigation thresholds for the redevelopment of land near existing rail infrastructure are presented in Table 28.

Table 28: Investigation thresholds for changing allowable land use near an existing rail corridor

Time	Type of receiver	Investigation thresholds
Daytime (0600-2200hrs)	Residential dwellings including aged person homes, hospitals, motels, caravan parks, and other buildings where people sleep. Noise sensitive community buildings including schools, kindergartens, libraries	65 dB $L_{Aeq,16h}$ or 85 dB L_{Amax}
Night-time (2200-0600hrs)	Residential dwellings including aged person homes, hospitals, motels, caravan parks, and other buildings where people sleep.	60 dB $L_{Aeq,8h}$ or 85 dB L_{Amax}

The investigation thresholds are not design criteria. However, should the investigation thresholds be exceeded, then the following internal design criteria are recommended by MDA:

- Bedrooms: 55 dB L_{Amax}
- Other living areas: 60 dB L_{Amax}
- Shops/offices: 60 dB L_{Amax}

The VPRINP requires the maximum railway noise be based on the 95th percentile of the maximum for all measured events.

These limits are based on a precedent set in the Victorian Civil and Administrative Tribunal (VCAT) regarding acceptable internal noise levels for residences adjacent to Tramway lines (Reference No. P2470/2003). In this case, a decision to grant a permit was made on the basis that the noise level of trains was not to exceed 55 dB L_{Amax} in bedrooms and 60 dB L_{Amax} in living areas. These levels were based on the commonly-used criteria for sleep disturbance taken from the *NSW Road Noise Policy*.

Since 2003, there have been two VCAT decisions which have recommended an internal noise limit of 50 dB L_{Amax} in bedrooms. However, there is no compelling case for the lower criterion as the decisions were not based on objective evidence presented to the Tribunal and are, in MDA's opinion, unnecessarily restrictive. 55 dB L_{Amax} is very close to the threshold of onset for noise-related sleep disturbance, and there is almost no significant difference (<1%) in reported levels of sleep disturbance between 55 dB L_{Amax} and 50 dB L_{Amax}.

The 55 dB L_{Amax} criterion has now been accepted by Public Transport Victoria (PTV) in a letter dated 18 October 2012, in relation to a residential development in Braybrook. Further details can be provided upon request.

APPENDIX D NOISE MEASUREMENTS

Location	Date	Equipment
M1	05 February 2020 to 13 February 2020	01dB CUBE 10510 smart noise monitor
M2	05 February 2020 to 13 February 2020	01dB CUBE 10423 smart noise monitor
M3	05 February 2020 to 13 February 2020	01dB CUBE 10422 smart noise monitor
S1	05 February 2020 to 13 February 2020	01dB CUBE 10510 smart noise monitor
S2	05 February 2020 to 13 February 2020	01dB CUBE 10423 smart noise monitor

All equipment used was fitted with weatherproof windshields. The microphone for surveys at M1, S1 and M3 were mounted at a height of approximately 1.5 m above local ground level under free-field conditions. The microphones for M2 and S2 were mounted at a height of approximately 3 m above local ground level under free-field conditions. Measurements were obtained using the 'F' response time and A-weighting frequency network. All equipment was checked before and after the survey and no significant calibration drifts were observed.

Figure 7 shows the location of the noise loggers during the survey periods.

Figure 7: Measurement location (Source: Nearmap)

APPENDIX E BACKGROUND NOISE LEVEL ANALYSIS

SEPP N-1

SEPP N-1 provides methodologies for determining the background noise level depending on whether the SEPP N-1 background noise level is determined to be high, low or neutral.

Preliminary analysis of the relevant zoning and measured background noise levels indicate that the background noise levels are high and as such SEPP N-1 specifies the use of the arithmetically averaged hourly background noise levels of each of the relevant time periods.

As such the applicable background noise levels for use in determining the SEPP N-1 limits are as follows.

Table 29: Applicable background noise levels for determining SEPP N-1 limits

Period	Measured background noise levels, L_{A90}
Day	53
Evening	49
Night	44

SEPP N-2

The assessment of music noise in accordance SEPP N-2 is based on the measurement of music noise over a 15-minute period. As such the relevant background noise level used to determine the limits is also based on a 15-minute measurement.

SEPP N-2 states the following in regard to the measurement of background noise levels:

"The background level shall be the LA90 level for the day/evening period....

...that represents the background level at the time when the effective noise level was measured."

Where background noise levels fluctuate during the day and evening, there would be a different noise limit for each time period when the effective noise level was measured. As SEPP N-2 does not specify a methodology for utilising logged background noise level data in a theoretical assessment, guidance for the use of averaged background noise levels is taken from SEPP N-1. In this case, MDA select the minimum of the averages over the logging period to determine the relevant day/evening limit.

For the night-time period, a more conservative approach is taken and the lowest 15-minute period during the time where the venue may operate is taken to determine the relevant noise limits. The background noise levels have been taken from the measurement made on Monday 10th February between midnight-0100 hrs.

The applicable background noise levels for use in determining the SEPP N-2 limits at are as follows.

Table 30: Applicable background noise level for SEPP N-2 day/evening limits

Period	Measured background noise levels, L_{A90} dB
Day/evening	50
Minimum period average	

Table 31: Applicable background noise level for SEPP N-2 night limits

Period	Octave Band Centre Frequency (Hz)						
	63	125	250	500	1000	2000	4000
Night-time background noise level L_{Oct90} dB	49	43	41	40	41	36	24

E1 Patron noise

The MDA methodology for the selection of background noise levels is based on the use of the typically recurring lower L_{A90} 15-minute value for each relevant assessment periods. The time periods are based on the current SEPP N-1 time periods.

The background noise levels used to determine the patron noise targets are shown below. Different limits are provided for the night-time periods of the weekdays and weekends to account for differences in the measured background noise levels between these periods.

Table 32: Typically recurring lower L_{A90} 15-minute value

Period	Relevant times	Background noise levels, L_{A90} dB
Day	As per SEPP N-1	53
Evening	As per SEPP N-1	50
Night	2200-midnight	50

MARSHALL DAY Acoustics

E2 Noise monitor graphs, M1

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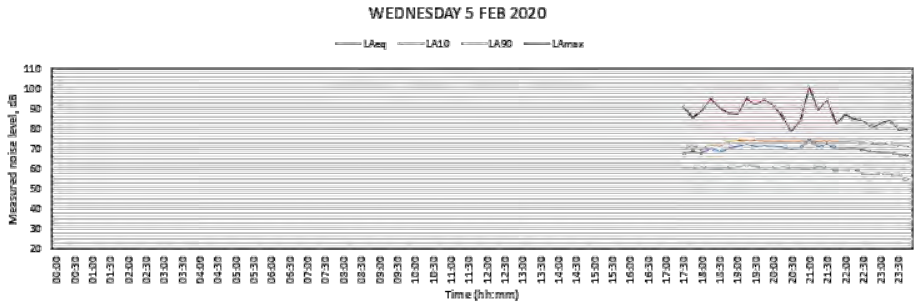

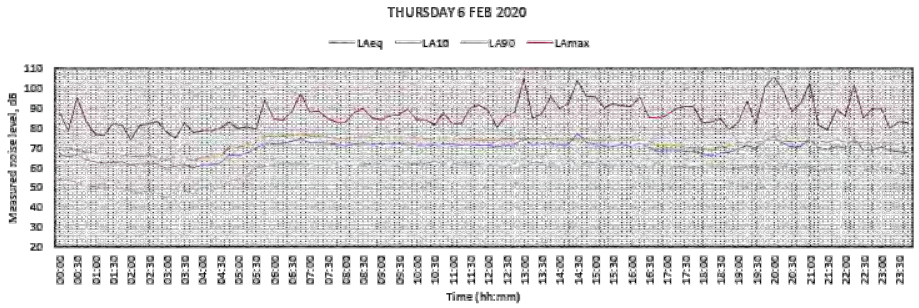

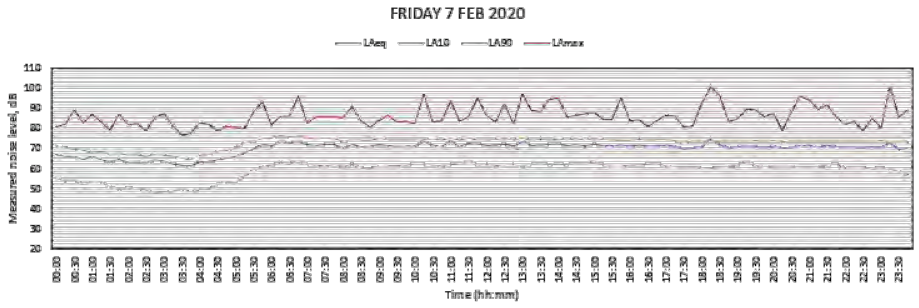

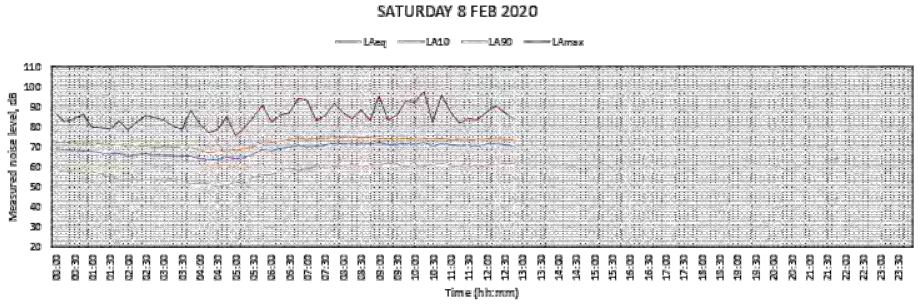

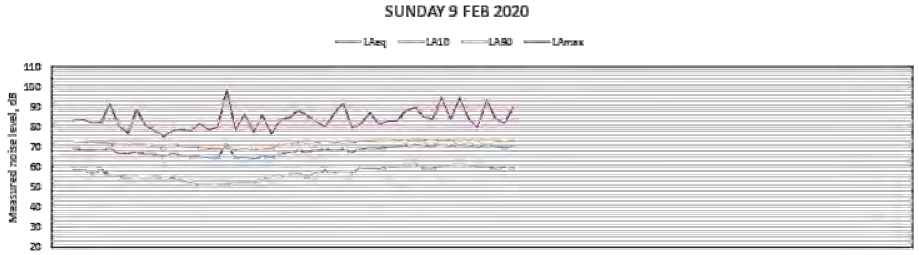

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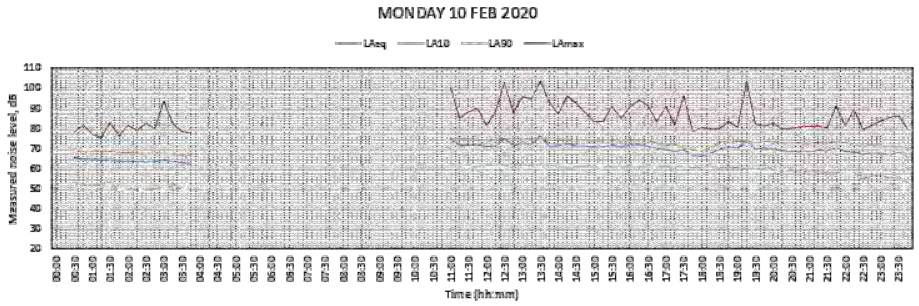

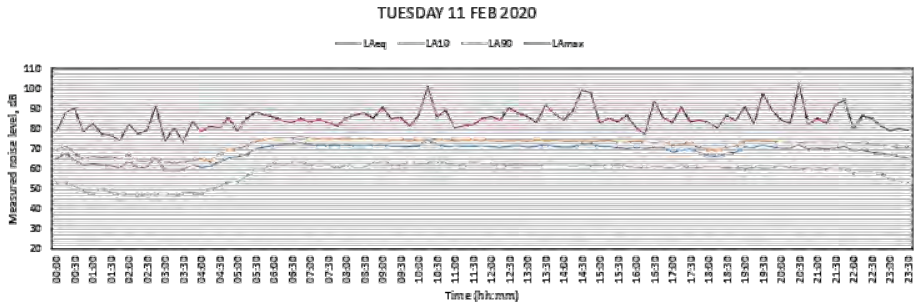

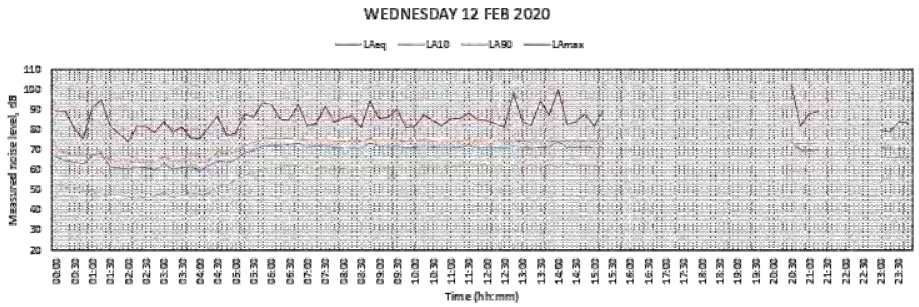

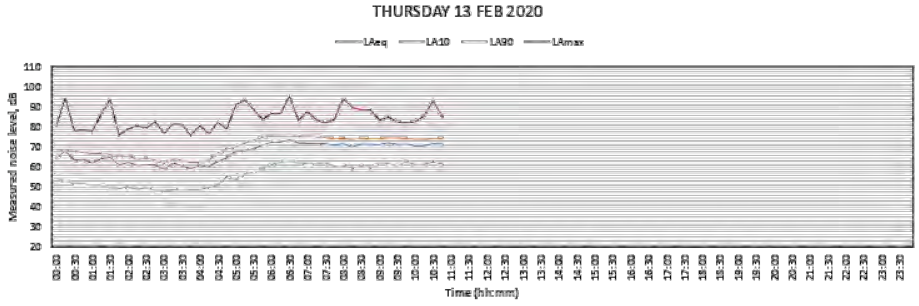

MARSHALL DAY Acoustics

E3 Noise monitor graphs, M2

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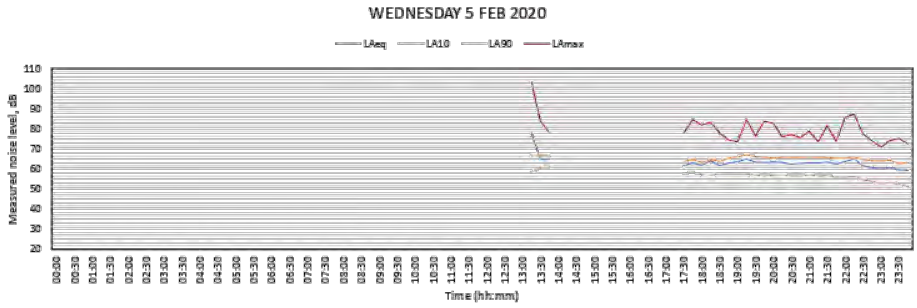

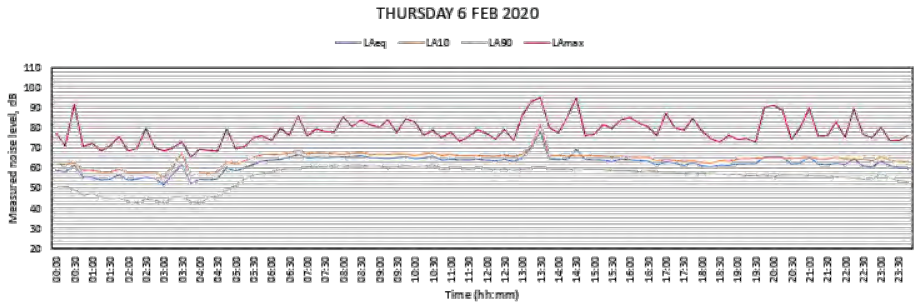

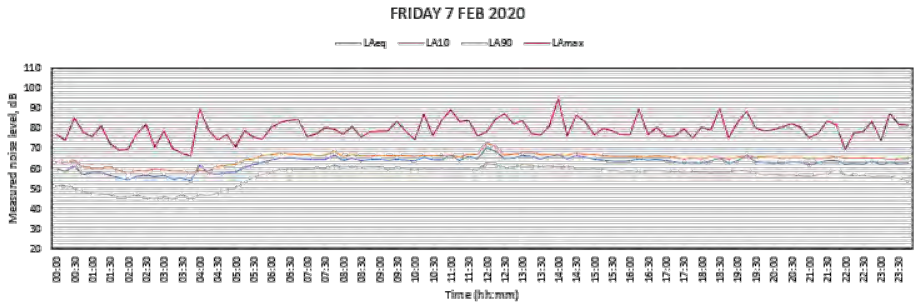

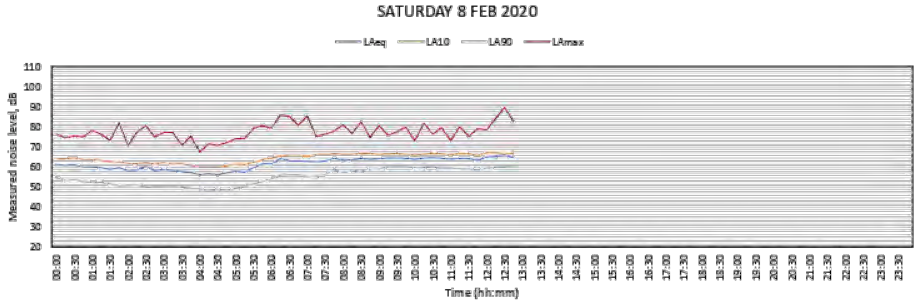

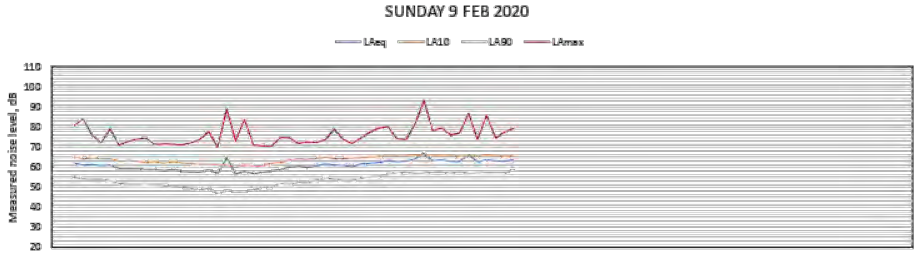

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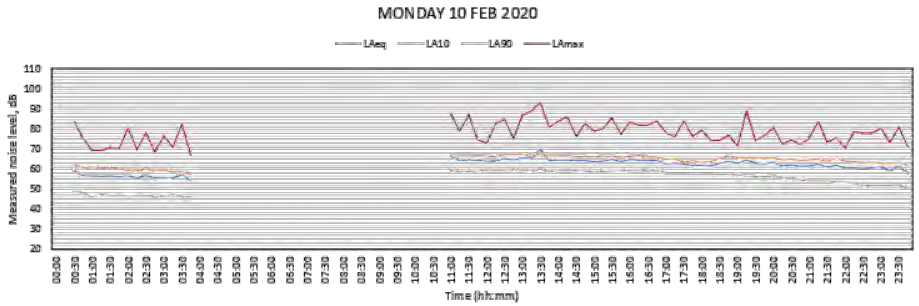

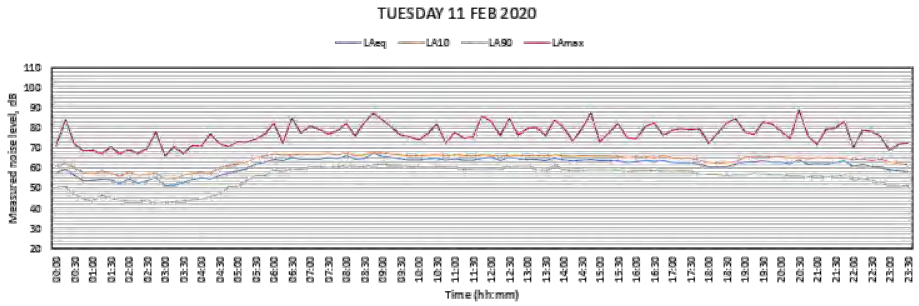

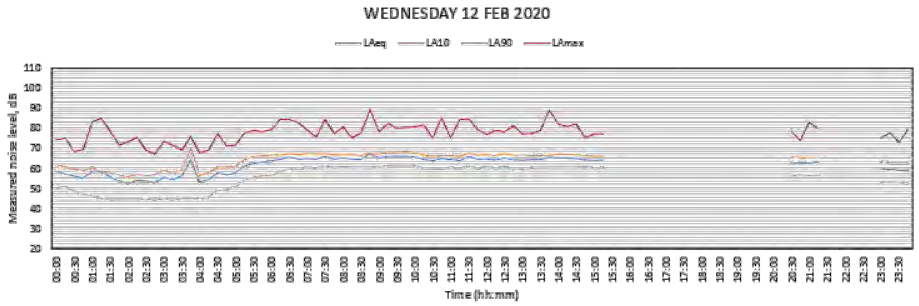

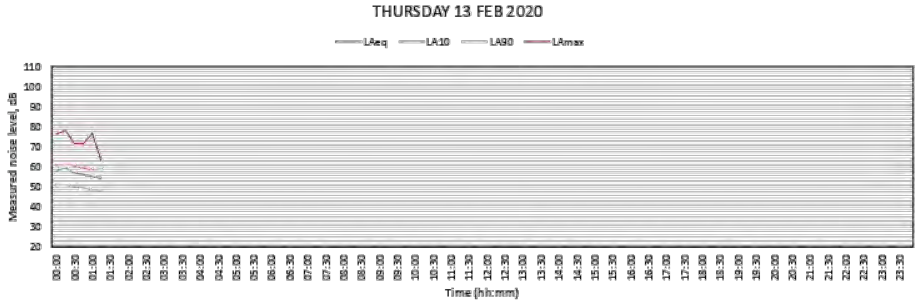

MARSHALL DAY Acoustics

E4 Noise monitor graphs, M3

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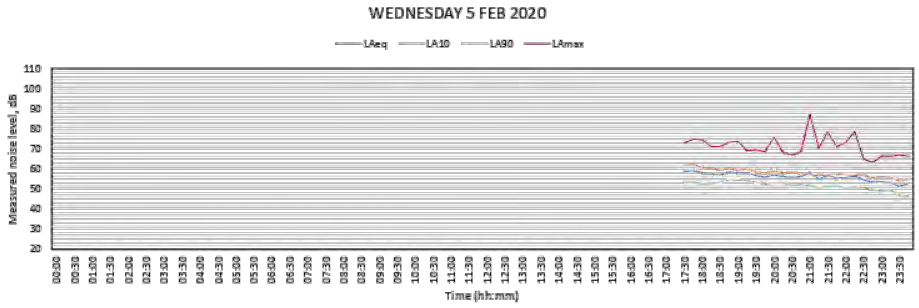

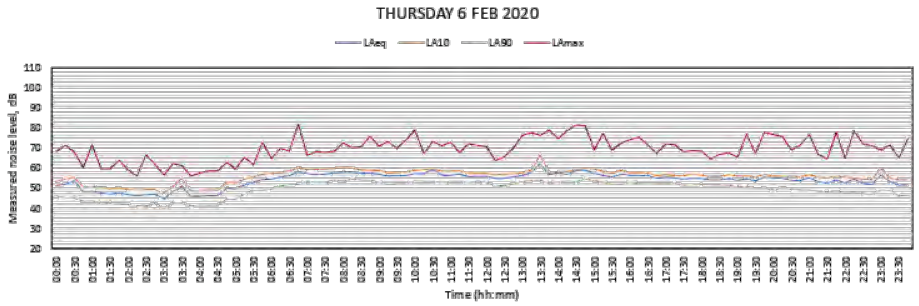

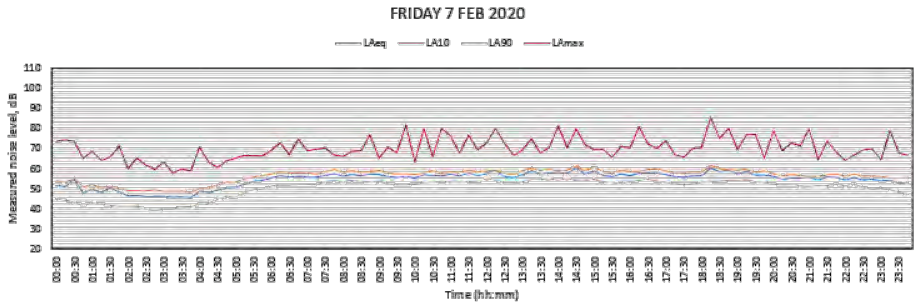

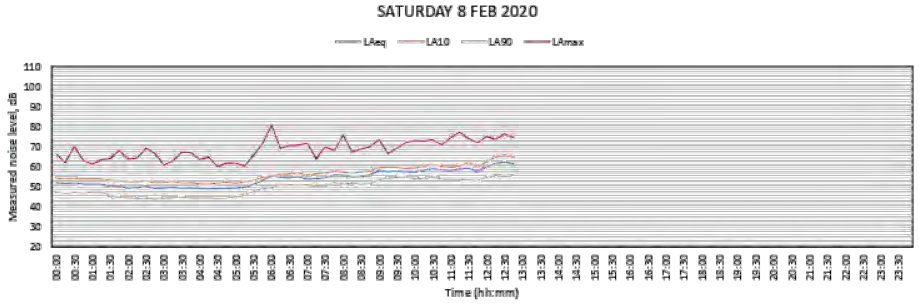

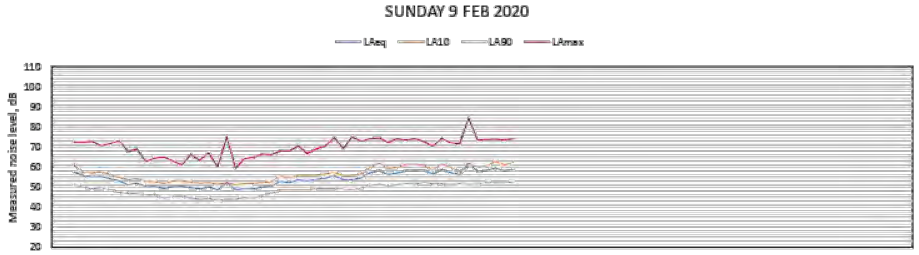

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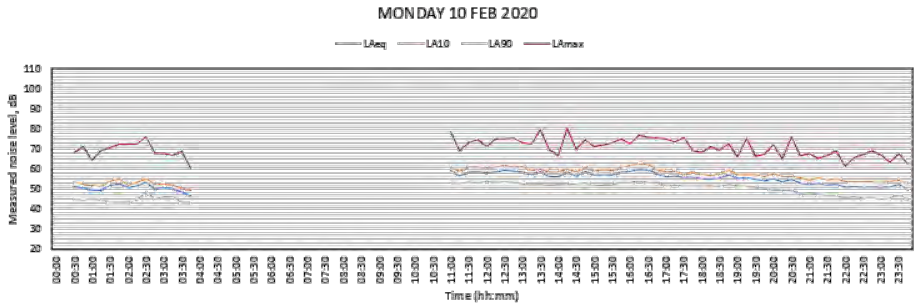

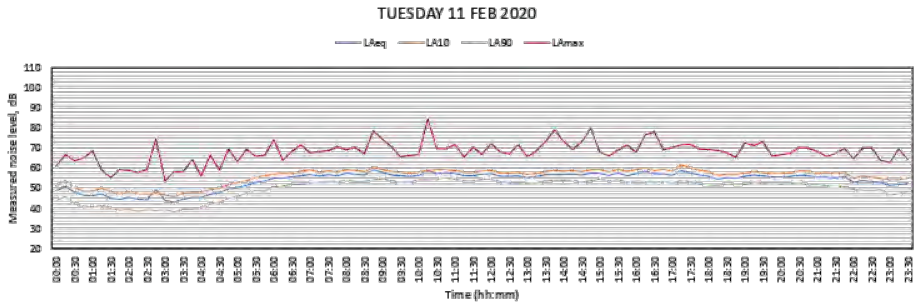

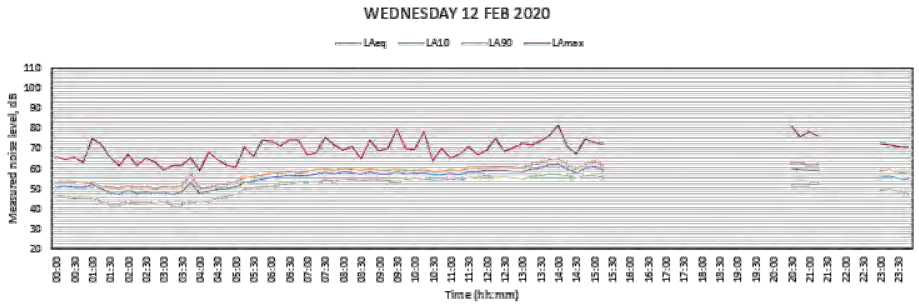

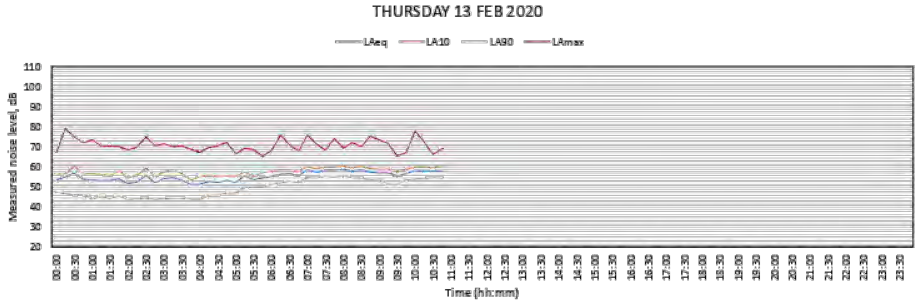

APPENDIX F DERIVATION OF NOISE LIMITS/DESIGN TARGETS

F1 SEPP N-1

Table 33: SEPP N-1 noise limits

Period	Day	Time	Zoning level	Background	Limit
Day	Monday-Friday	0700-1800 hrs	57	53	59
	Saturday	0700-1300 hrs			
Evening	Monday-Friday	1800-2200 hrs	50	50	53
	Saturday	1300-2200 hrs			
	Sunday/Public Holidays	0700-2200 hrs			
Night	Monday-Sunday/Public Holidays	2200-0700 hrs	45	44	47
Note:	*Background noise levels from measurement location M3 per Table 13*				

F2 SEPP N-2

Table 34: SEPP N-2 day/evening noise limits

Period	Measured background noise levels, L_{A90}	Limit
Day/evening	50	55
Note:	*Background noise levels from measurement location M3, minimum day/evening period average.*	

Table 35: SEPP N-2 night-time noise limits

	Octave Band Centre Frequency (Hz)						
	63	125	250	500	1000	2000	4000
Weekday (Sunday to Thursday)	49	43	41	40	41	36	24
	+8	+8	+8	+8	+8	+8	+8
Music noise limit weekday	57	51	49	48	49	44	32
Note:	*Background noise levels from measurement location M3, 2345 to 2400 hrs 10/02/2020*						

MARSHALL DAY Acoustics

Table 36: Patron noise design targets – 379 Punt Road

Period	Relevant times	Background noise levels, L_{A90} dB	Design target, L_{Aeq} dB
Day	As per SEPP N-1	53	63
Evening	As per SEPP N-1	50	60
Night	2200 hrs - midnight	48	53

Note: Background noise levels from measurement location M3

APPENDIX G PATRON NOISE DATA

The noise of patron areas associated with dining and licensed venues is highly variable according to a wide range of factors including:

- The type of venue
- The function of the space within the venue (i.e. seated areas for dining or standing areas with a focus on alcohol consumption)
- Total crowd numbers
- The composition of the total patron numbers in terms of demographics and group sizes
- Weather
- Alcohol consumption
- Background noise levels
- The acoustic properties of the space.

Based on the above considerations, total patron noise emissions will vary significantly between different venues. Further, for a given venue patron noise emissions will vary from day to day and hour to hour according to these types of factors.

The individual and cumulative effect of these factors cannot be precisely calculated. Accordingly, to provide a practical basis for assessing the noise from proposed external areas, a simplified method has been developed to characterise the noise emissions of four broad categories of venue type for different number of patrons. The method is based on a single representative vocal effort to characterise the range of emissions of all individuals within the crowd.

It is assumed that a portion of the crowd may be speaking at any given point in time.

In practice, the vocal effort of each individual will vary across the crowd and throughout the assessment period. The portion of the crowd will also vary. The selected values are therefore not considered exact representations of a crowd's patterns. The values have been chosen to enable a simple relationship to be formulated which provides close agreement with patron noise measurements conducted at a range of venues.

Marshall Day Acoustics and other acoustic consultants in Melbourne have measured patron noise from several different venues. These measurements indicate a large variation in the noise levels of crowds. Variations are due to a number of factors including the situational context of the crowd.

For the purpose of predicting noise levels from a venue, external patron areas are categorised according to the descriptions outlined in Table 37. Reference sound power data for one person is detailed in the 2011 Hayne paper[3].

Table 37: Patron area use categories

Area use category	Reference sound power data per one person		Area use definition
	Equivalent	Maximum	
Vertical drinking ('worst-case' crowd)	88 dB L_{AW}	104 dB L_{AW}	Standing patrons drinking and talking Focus of activity on drinking and socialising
Taverns with significant food offerings	83 dB L_{AW}	104 dB L_{AW}	Predominantly seated patrons, drinking, dining and talking Focus of activity on drinking, whilst dining and socialising
Restaurant dining	78 dB L_{AW}	98 dB L_{AW}	Seated patrons, drinking, dining and talking Focus of activity on dining and socialising
Small smoking areas (<40 patrons)	73 dB L_{AW}	98 dB L_{AW}	Patrons using area for smoking Focus of activity on smoking rather than socialising (data also includes outdoor areas with alcohol consumption)

Based on the above reference sound power data and measurements by Marshall Day Acoustics, a simplified empirical relationship to represent the total sound power level for which crowd numbers and character were varied has been derived for determining design equivalent and maximum sound power level as follows:

- Design equivalent sound power level - derived by assuming that one third of the total crowd speaks continuously over the duration of the assessment period, and each of these speakers emit a constant total sound power level over the duration of the assessment period. In practice, the actual number of individuals speaking, the sound power emitted by each individual, and the temporal characteristics of each speaker will vary considerably over the assessment period. The derived values therefore do not represent the actual percentage of patrons speaking, or the emission of each patron, but simply represent the total sound power level for the number of patrons
- Design maximum sound power level - derived by assuming that the maximum noise level occurs as a result of two (2) individuals simultaneously producing a maximum level. Smoking areas and restaurants are considered to have the same maximum sound power level characteristics, as are taverns with significant food offerings and vertical consumption crowds.

Figure 8 provides the total equivalent sound power based on patron numbers.

[3] Hayne et al 2011, 'Prediction of noise from small to medium sized crowds', in *Acoustics 2011: Breaking New Ground, Proceedings of the Annual Conference of the Australian Acoustical Society*, AAS Queensland Division 2011, Gold Coast, paper number 133.

Figure 8: Total equivalent sound power based on patron number

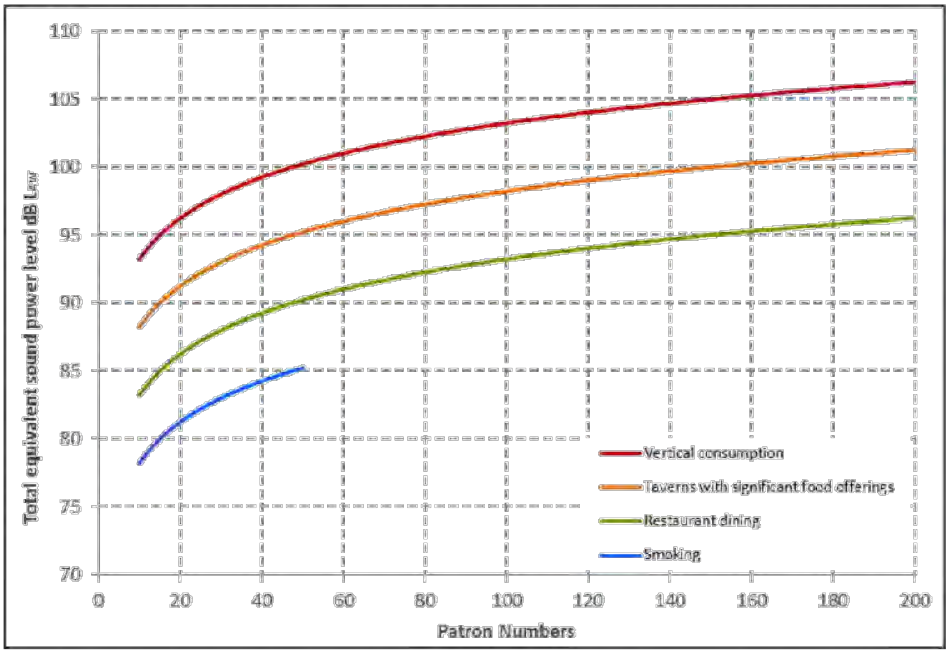

Table 38 provides the octave band spectral correction applied to the calculated patron sound power.

Table 38: Octave band spectral correction

	Octave Band Centre Frequency (Hz)						
Source	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**
Spectral Correction	-12	-10	-9	-2	-4	-8	-15

6 March 2020

640.10090.06240 L01-v1.0 375 Punt Rd Cremorne.docx

City of Yarra
P.O. Box 168
Richmond VIC 3121

Attention: Laura Condon

Dear Laura

375 Punt Road Cremorne
Development Application Acoustic Review
PLN19/00751

SLR Consulting Pty Ltd (SLR) has been retained by the City of Yarra to provide a review of the acoustic assessment report for the planning application at 375 Punt Road Cremorne.

Details of the report are as follows:

- Title: *375-377 Punt Road Cremorne Hotel – Town Planning Noise Assessment*
- Reference: Rp 001 020191168
- Date: 21 February 2020
- Prepared for: Form Engineers
- Prepared by: Marshall Day Acoustics

The report has been prepared to support the application to operate a hotel on the subject site, within the building that was originally intended to be a residential building.

SLR Consulting Australia Pty Ltd Level 11, 176 Wellington Parade East Melbourne VIC 3002 Australia
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1 Background Information

Summary of the Acoustic Report (Sections 1 – 5)

The proposed operations, site location and relevant planning permit conditions are identified in these sections of the report. The application is to re-purpose the six-storey building (currently under construction) to a hotel. The hotel would include guest rooms, conference room, food and beverage areas, bar and rooftop terrace.

The acoustic report is a response to City of Yarra planning permit PLN19/0951 dated 13/11/2019:

2e: *A detailed written response to the Application Requirements at clause 22.09-4, and to further include;*

i Further justification of the proposed 1am closing given this policy encourages the sale and consumption of alcohol in residential zone to cease at 8pm. This should also detail how external patron and music noise will be managed from the roof top terrace to nearby residential properties.

ii Detail how noise impacts from goods deliveries and collection of bottles will be managed given the residential interface.

iii A Noise and Amenity Action Plan.

4 An acoustic report detailing how the residential hotel rooms will be adequately protected from traffic and train noise and how residents to the rear will be affected/protected from patron and music noise from the roof terrace bar.

The site is in close proximity to Punt Road and Swan Street. It is also located approx. 120 metres south of Richmond Railway Station.

The nearest noise sensitive receivers are:

- 5 Huckerby Street, a double-storey dwelling to the east
- 2 Rout Street, a single storey dwelling to the southeast
- 379 Punt Road, a six-storey apartment/hotel building to the south

SLR Comments: *Agreed / no comment.*

2 Background Noise Levels

Summary of the Acoustic Report (Section 6.1)

Unattended background noise monitoring was conducted at 5 locations on the site. The measurements were conducted for a week beginning on Wednesday 5 February 2020 and the measurement locations were 1.5 to 3.0 metres above ground level.

The L_{90} background noise levels used for the SEPP N-1 assessment were 53 dBA for the day period, 50 dBA for the evening period and 44 dBA for the night period.

SLR Comments: *It is unclear which measurement location was used for determining the SEPP N-1 noise limits. We note that the background noise levels are classified as 'high background' according to SEPP N-1.*

Graphs of the unattended noise monitoring results are requested, in order to check the basis of the noise limits.

3 Road Noise Intrusion

3.1 Criteria

Summary of the Acoustic Report (Section 7.4)

Road traffic noise was assessed using the upper end of the range shown in AS/NZS 2107:2016. The following criteria have been used:

- Sleeping areas: 40 dBA $L_{eq,15min}$ from 10 pm to 7 am
- Washrooms & toilets: 55 dBA $L_{eq,15min}$

Sleep disturbance criteria adopted for the project are 55 dBA L_{max}, with 1-2 events per night reaching up to 70 dBA L_{max}.

SLR Comments: *Agreed / No comment*

3.2 Source Noise Levels

Summary of the Acoustic Report (Section 6.2)

Unattended noise monitoring was conducted on the western facade at a location on level one with line-of-sight to Punt Road. The monitoring was conducted for a week and the resulting night-time $L_{eq,8hr}$ noise levels were 67-69 dBA. Attended measurements were also conducted on two weekdays, with $L_{eq,15min}$ noise levels of 72 dBA and 71 dBA measured at 1:15pm and 10:45am respectively.

SLR Comments: *The source levels used for the road noise calculations have not been stated. It is also unclear which measurement result has been used to determine the source levels.*

3.3 Acoustic Assessment

Summary of the Acoustic Report (Section 8.0)

Based on simultaneous internal and external measurements conducted in Room 5 of the proposed hotel, the sound insulation provided by the existing facade for traffic noise was observed to be approximately 20 dB. The report suggests that sealing the existing gaps in the facade will reduce indoor traffic noise levels by 5 dBA and installation of furnishing in the rooms will further reduce noise levels in sleeping areas by 3 dB.

Based on the above upgrades, the Leq noise levels in sleeping areas are predicted to comply with the criteria by 1 dBA and the L_{max} noise levels are predicted to exceed the sleep disturbance criteria by up to 5 dBA. Noise levels in washrooms and toilets are predicted to be well below the criteria.

SLR Comments:

The excess of the sleep disturbance criteria is not ideal, however we do not consider that Lmax criteria are necessary for road traffic noise as long as the Leq criteria (from AS2107) are met. This is ultimately a building quality issue rather than a planning issue.

4 Railway Noise Intrusion

Summary of the Acoustic Report (Sections 6.3)

Attended noise measurements were conducted from 2:00 pm to 2:15 pm on Wednesday 5 February. These measurements found that the dominant noise source at the subject site was traffic on Swan Street, and railway noise was not audible. Unattended monitoring was conducted at the north-eastern corner of the subject site on a level 3 balcony. Analysis of audio recordings from this monitoring found that L_{eq} and L_{max} noise levels were dominated by road noise.

The report states that sufficient attenuation of road traffic noise would also be sufficient for rail noise.

SLR Comments: *Agreed / No comment*

5 Patron Noise

5.1 Criteria

Summary of the Acoustic Report (Section 7.3)

Patron noise limits have been calculated based on the measured background noise levels. The day/evening period limits are the L_{90} background level plus 10 dB and the night period limit is the L_{90} background level plus 5 dB.

The calculated patron noise limits are as follows:

- 63 dBA L_{eq} for the day period
- 60 dBA L_{eq} for the evening period
- 55 dBA L_{eq} from 10 pm to midnight

For the night period, a sleep disturbance criterion of 65 dBA Lmax (external) has been used.

SLR comments

The time and location measurement/monitoring results which have been used to calculate the patron noise criteria are unclear.

As above, we request that graphs of the noise monitoring results are provided, in order to check the basis of the patron noise criteria.

5.2 Assessment

Summary of the Acoustic Report (Section 9.2 and 12.3)

Level 6 includes an indoor "flexible space" area with a licenced bar and an outdoor roof terrace, as shown in the figure below. Patron noise has been assessed for the indoor flexible space. The rooftop terrace is not licenced and patron noise from this area has not been assessed.

The flexible space has been assessed based on usage by 36 patrons with a source level based on the "tavern with significant food offerings" classification. The windows and doors of the flexible space have been modelled as open during the day and evening periods and as closed during the night period. The predicted levels of patron noise at the worst case sensitive receivers are:

- 62 dBA L_{eq} during the day/evening period
- 41 dBA L_{eq} during the night period
- < 55 dBA L_{max} for the sleep disturbance assessment during the night period.

The report determines that there is a low to negligible risk of patron noise causing disturbance to nearby sensitive receivers, provided that the windows and doors are closed after 10 pm.

SLR comments

The calculated noise patron noise levels for the flexible space area appear reasonable.

We would also recommend restricted access to the roof terrace during the night period.

6 Music Noise

6.1 Criteria

Summary of the Acoustic Report (Section 7.2 and Appendix F)

SEPP N-2 limits for music noise have been calculated based on the measured background noise levels. The calculated external noise limits are as follows:

- Day/evening period: 55 dBA L_{10}
- Night period: As per the spectra shown in Table 10 of the report (equivalent to 52 dBA L_{10}).

SLR Comments *Appendix F of the report does not state which measurement location(s) and times were used as background noise levels for determining the SEPP N-2 noise limits.*

As above, we request that graphs of the noise monitoring results are provided, in order to check the basis of the patron noise criteria.

6.2 Assessment

Summary of the Acoustic Report (Sections 9.1, 12.1 and 12.2)

No live music is proposed within the development. Recorded music in the rooftop bar has been assessed based on the playing of background music in this space.

The report recommends that music in the rooftop bar be restricted to background music with a level of 67 dBA. It is also recommended that the windows and doors of the rooftop bar remain closed after 10 pm.

Use of a music noise limiter is discussed in the report, however it is not considered necessary for a small development.

SLR comments

We recommend that indoor music at background levels is unlikely to be an issue and therefore agree that a proprietary noise limiter is not necessary in this situation.

7 Waste Collection and Deliveries

Summary of the Acoustic Report (Section 3.3)

Waste collection and deliveries are proposed to be made via the loading dock, which is located in Huckerby Street. The proposed hours for waste collection and deliveries are:

- 7 am to 10 pm on Monday to Saturday
- 9 am to 10 pm on Sunday and public holidays

SLR comments

The EPA Noise Control Guidelines (Publication 1254) recommend that deliveries should not occur after 8 pm on any day. Given the close proximity of the loading dock to existing residences, we recommend that the EPA Guideline time restrictions be adopted.

8 Mechanical Plant Noise

Summary of the Acoustic Report (Section 6)

The mechanical plant proposed at this stage for the development consists of:

- Rooftop plant: Outlet for the kitchen exhaust fan
- Ground floor: Condensers or compressors with ventilation louvre

This plant may operate 24/7, therefore it is required to comply with the night period SEPP N-1 noise limit. The report provides indicative maximum sound power levels for the aforementioned plant and notes that the cumulative impact of any additional plant should be assessed if this is proposed.

SLR Comments: *Agreed.*

We recommend that the report include a statement requiring that the mechanical plant, once designed, be assessed by a qualified acoustic consultant.

9 Summary

A review of the acoustic report prepared for the proposed hotel at 375 Punt Road Cremorne has been completed.

Our specific recommendations are:

1. *Graphs of the unattended noise monitoring results are requested, in order to check the basis of the noise limits.*
2. *The source levels used for the road noise calculations be stated, along with details of which measurement were used to determine the source levels.*
3. *The report clarifies which the time and location of the measurement/monitoring results which have been used to calculate the patron noise criteria.*
4. *Restricted access to the roof terrace during the night period.*
5. *Appendix F of the report include details of which measurement location(s) and times were used as background noise levels for determining the SEPP N-2 noise limits*
6. *Waste collection and deliveries should cease at 8 pm (rather than 10 pm as proposed).*
7. *The report includes a statement requiring that the mechanical plant, once designed, be assessed by a qualified acoustic consultant.*

Regards,

Simon de Lisle
Associate – Acoustics

Checked/
Authorised by: JA

18 May 2020

640.10090.06240 L02-v1.0 375 Punt Rd Cremorne roof terrace.docx

City of Yarra
P.O. Box 168
Richmond VIC 3121

Attention: Laura Condon

Dear Laura

375 Punt Road Cremorne
Patron Noise from Roof Terrace
PLN19/00751

SLR Consulting has conducted peer reviews of the acoustic reports for the hotel proposed at 375 Punt Road Cremorne. This memo summarises SLR Consulting's peer review of patron noise impacts from the proposed roof terrace.

1 Night Period

The roof level includes an indoor "flexible space", a licenced area which includes a bar. Also on the roof level is an outdoor terrace which is not licenced and intended for "passive recreation eg book reading or sunbaking or may be used by smokers". Patron noise was assessed for the flexible space but not the roof terrace.

SLR was concerned about potential for usage of the roof terrace during the night to impact surrounding sensitive receivers, therefore we recommended that usage of the roof terrace be restricted to before 10 pm.

The revised acoustic report recommended "closure of the outdoor roof terrace during the night-time period (after 2200 hours)". This revision addressed our concerns and we recommended the report as being suitable for endorsement.

2 Day and Evening Periods

SLR's recommendation is that patron noise from the roof terrace it is low risk during the day and evening periods. We expect it is unlikely that large numbers of noisy people would be using the space during the evening period (there is no food or drink/liquor served, it is to be used by individual hotel rooms, and is designed for book reading, sunbathing etc). Therefore, it is recommended that no acoustic assessment is necessary for the day and evening period usage of the roof terrace.

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On 14 May 2020, council advised SLR as follows:

> *...the applicant offered to reduce total patron numbers on the roof terrace from 158 (35 in flexible space/bar and 123 patrons on terrace) to100 (35 in flexible space/bar and 65 patrons on terrace), combined with closing down the rear part of the terrace adjacent to the sensitive residential interfaces at 8pm and with a 10pm closing time for the remainder of the terrace and flexible space/bar.*

SLR notes that the proposed changes would reduce potential patron noise impacts, further reducing the risk of patron noise issues during the day and evening periods.

Regards,

Simon de Lisle
Associate – Acoustics

Checked/
Authorised by: DW

Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP

FORM

PROPOSED HOTEL DEVELOPMENT

375-377 PUNT ROAD
CREMORNE, VICTORIA 3121

REPORT
SUSTAINABLE MANAGEMENT PLAN

PROJECT NO. 17070

17070 RPT-ESD-01

Rev	Date
1	27/04/20

for 375 – 377 PUNT PTY LTD

ABN 93 148 858 888
L14 333 Collins St VIC 3000
formengineers.com.au

Proposed Hotel Development
375-377 Punt Rd, Cremorne, VIC 3121
Sustainable Management Plan Report

REVISION

Revision	Date	Comment	Prepared By	Approved By
0	12/12/2019	Town Planning Amendment	MB	MB
1	27/04/2020	Town Planning Amendment	MB	MB

CHECKED AND APPROVED BY

NAME: Mark Barrie

SIGNATURE: 

DATE: **27 April 2020 – Revision 1**

Qualifications to this Report

The following qualifications apply to this report:

- This Sustainability Management Plan report has incorporated the architectural form of the building as currently proposed. Any changes proposed after the issue of this document is subject to re-assessment to ensure accuracy of the content of this report.

Limitations

This document is and shall remain the property of **Form Engineers**. The document may only be used for the purposes for which it was commissioned and in accordance with the Terms of Engagement for this commission. Unauthorised use of this document in any form is prohibited.

Proposed Hotel Development
375-377 Punt Rd, Cremorne, VIC 3121
Sustainable Management Plan Report

CONTENTS

QUALIFICATIONS TO THIS REPORT **2**
LIMITATIONS **2**
EXECUTIVE SUMMARY **4**
PROJECT OVERVIEW **5**
OVERVIEW OF ESD INITIATIVES **5**
INDOOR ENVIRONMENT QUALITY 7
ENERGY EFFICIENCY 9
WATER EFFICIENCY 11
STORMWATER MANAGEMENT 12
SUSTAINABLE TRANSPORT 13
WASTE MANAGEMENT 14
MATERIAL SELECTION 14
URBAN ECOLOGY 15
CONSTRUCTION & BUILDING MANAGEMENT 15

APPENDIX I – BESS REPORT **16**
APPENDIX II – ARCHITECTURAL PLANS **17**
APPENDIX III – NCC BCA SECTION J COMPLIANCE REPORT **18**
APPENDIX IV – STORMWATER MANAGEMENT (WSUD) REPORT **19**

EXECUTIVE SUMMARY

The Sustainable Management Plan (SMP) has been prepared at the request of 375 – 377 Punt Pty Ltd, the Client, compiled for submission to the City of Yarra and is intended to provide an overview of the Environmentally Sustainable Design (ESD) initiatives in support of the planning application for the proposed hotel development at 375 Punt road, Cremorne.

The current Town Planning proposals identifies a 6-storey, 61 beds hotel development, with restaurant and café facilities on basement and ground levels and rooftop deck common facility, available to patrons to be built on an existing site.

In accordance with the Environmentally Sustainable Development objectives stated in Clause 22.17-2 the Planning Scheme, this SMP aims to provide a detailed assessment of the development, identify commitments and demonstrate that the proposed development has the design potential to achieve the environmental performance outcomes.

This development has been assessed using the Built Environment Sustainability Scorecard (BESS) online tool, in conjunction with Melbourne Water's STORM Calculator. The proposed development has been specifically assessed against the following seven key sustainability categories:

1. Energy performance
2. Water resources
3. Indoor Environmental Quality (IEQ)
4. Stormwater management
5. Transport
6. Waste management
7. Urban ecology

The result of BESS assessment is summarised as follows, reflecting an overall project score of 51% which reflects a "Best Practice" outcome.

Category	Minimum Target Score	Project Score
Management	-	88%
Energy	50%	50%
Water	50%	57%
Stormwater	100%	100%
IEQ	50%	67%
Transport	-	50%
Waste	-	33%
Urban Ecology	-	12%
Innovation	-	0%
Result	50%	54%

Based on the above, the proposed development effectively demonstrates the design potential to achieve the environmental performance and objectives outlined in Clause 22.17-2 of the planning scheme, as required by City of Yarra.

PROJECT OVERVIEW

Form Engineers is engaged by the Client, 375-377 Punt Pty Ltd to review the proposed development at 375-377 Punt Rd, Cremorne and prepare a SMP report in support of the planning permit application the City of Yarra (ref: PLN19/0751).

The proposed development is a residential hotel development, food and drink premises and bar on a 450m^2 site.

The building consists of the following:

Level	Description	Area (sqm)
Lower Basement	Kitchen, Bicycle Parking, End of trip, Storage & Refuse areas	230 m^2
Upper Basement	Restaurant, Conference Rooms, Amenities & Storage areas	354 m^2
Ground	Café, Hotel Lobby & Amenities	280 m^2
1st – 5th	61 hotel rooms	1,370 m^2
6th	Roof terrace, Bar/Café & Amenities	242 m^2

OVERVIEW OF ESD INITIATIVES

The proposed development has put forward the following ESD design initiative and measures in order to meet the planning objectives for an environmentally sustainable design, including a stormwater management best practice outcome.

The section below provides an outline of the ESD and WSUD design features committed by the development organised in the categories assessable via BESS only tool. Refer to proceeding section of the reports for more details on each category.

- **Ongoing Building and Site Management**
  - Builder to implement an Environmental Management Plan in line with ISO 14001 relating to activities carried out during construction
  - Building user guides containing ESD design features, intents and objectives to be developed and made available to facility management and occupants
  - Commitment to 12-month (post-handover) building tuning period and recommissioning at completion of tuning activities
- **Water Efficiency**
  - Industry best practice standard WELS rating specified for all water fixtures
  - 7,200 L rainwater storage tank to serve toilet flushing, landscape irrigation and bin washdown
  - Air-based heat rejection system (does not consume water)
  - Water efficient landscaping
  - Water sub-metering for each tenancy and common area
- **Energy Efficiency**
  - Achieving and exceeds NCC minimum energy consumption performance standard by more than 10% (without the inclusion of on-site generation tech or heat recovery).
  - Passive shading features to control solar gain
  - Efficient HVAC (at least 10% better than NCC minimum) equipment energy efficiency
  - LED fixtures throughout and 20% lower lighting power density than NCC requirements
  - Programmable timers, occupancy sensor controls to common area and external lighting systems

- Centralised, zoned VRV air conditioning and VSD for fan motors and programmable timers to manage HVAC operation to minimise energy demand and costs
- On-site energy generation utilising roof mounted solar PV array (3kW) minimising greenhouse emission and help reduce peak energy demand
- Energy sub-metering for each tenant and common area
- Energy efficient appliances to be nominated throughout (refrigerators)

- **Stormwater Management**
  - Best practice stormwater run-off quality outcome (109% STORM Rating achieved)
- **Indoor Environment Quality**
  - Provision for adequate ventilation rate (natural/mechanical air supply & mechanical exhaust)
  - Robust building fabric thermal performance:
    - To minimise heat losses
    - To provide solar gain control during cooling period
    - To take advantage of beneficial solar heating during cooler period
    - With high performance double-glazed window with high VLT throughout
    - To reduce reliance on mechanical heating and cooling to maintain comfortable thermal environment
  - Best practice building sealing practices to minimise air leakages to manage energy consumption and maximise comfort
  - Minimisation of VOC and Formaldehyde emission
  - Best practice acoustic insulation levels to manage noise and reverberation levels
  - High daylight access (via high VLT glazing) combined with daylight sensor allows for naturally lit indoor environment and reduced reliance on artificial lighting
  - Glare management using internal blinds
  - Provision of external view to occupant to maintain connection with natural environment
- **Transport**
  - Proximity to multiple public transportation options (busses & trains)
  - Increased bicycle parking spaces provision with associated end-of-trip facilities
  - Project specific Travel Plan has been prepared with Alternative (Green) Transport modes identified in Appendix A of the report *(Traffix Group – 10 Dec 2019)*
- **Waste Management**
  - Operation Waste Management Plan has been prepared (*LiD – 16 Dec 2019*)
  - Separation of general waste, recycling waste and organic waste at source
- **Material Selection**
  - FCS or PEFC timber to be incorporated in line with Green Star Mat-7 Timber credit
  - Speedfloor system (aerated) reducing floor slab thickness to 120mm, displacing Portland Cement content
  - Cold-rolled steel structure, recyclable and using less embodied energy to manufacture
- **Urban Ecology**
  - Provision for communal (roof top) spaces and green planting to increase biodiversity

Through the various initiatives above the project believes that the SMP report has demonstrated the proposed development has the design potential to achieve best practice environmental outcomes through good design principles and sensible approach, as required by the Planning Scheme.

Indoor Environment Quality

The design for 375 Punt Road, Cremorne recognises that indoor Environment Quality (IEQ) is a key sustainable category and aims to improve the indoor environment for the tenants, which in turn improves overall wellbeing.

The current residential development seeks to improve the overall Indoor Environmental Quality (IEQ) for the tenants by addressing the following elements:-

Assessment Criteria	Design Measures
Adequate Ventilation	**Occupied Spaces** The proposed building has been designed with a ventilation rate to meet BCA and AS/NZS1668 provisions. Natural ventilation to be provided via operable windows to: ▪ Each individual hotel rooms. Occupancy controlled. Mechanical ventilation to be provided as follows: ▪ 10L/s/person supply to the occupied areas in basement levels, including restaurant and primary kitchen ▪ 10L/s/m^2 (or greater) to the common and hotel toilet amenity areas ▪ Dedicated, commercial grade kitchen exhaust ventilation system discharging directly to outside at roof level complying to AS1668.2 Air intakes and exhausts location have been carefully selected with 6m minimum distance apart to avoid possibility of air short-circuiting (or contamination) to ensure the quality of fresh air supply to the occupants. Filters shall be provided for intake air systems, and back-draft damper fitted to all exhaust air systems.
Thermal Comfort	Beyond meeting the legal minimum energy performance requirement of the NCC, the project aims to maximise thermal comfort for the occupant through careful design, assessment and selection of building fabric. **A JV3 energy modelling exercise has been completed and demonstrates compliance with the NCC with an improvement of 11.8% above the minimum requirements.** This means the building has been assessed to have the design potential to provide a thermally comfortable indoor environment through the application of double-glazed windows, Deemed to Satisfy (DtS) or better levels of insulation to the roofs, walls and floors, combined with effective use of external shading features and best practice building sealing standard. High performance windows system selection has been optimised to provide a balance between providing solar heat gain control (SHGC), minimising rate of heat loss (U-value) while allowing generous amount of daylight access to the interior (VLT). Low-E options were also considered however found not to be cost effective for the small increase in energy efficiency and found to be unnecessary to achieve a good level of thermal comfort performance due to the optimised glazing area.
Building Sealing & Air Leakage	Minimising air leakage avoids uncomfortable air drafts for the occupants. The proposed project shall comply with required NCC standard of construction in relation to building sealing to ensure potential for air leakages is minimised.

Indoor Air Pollution	**VOC Levels** All interior paints, adhesives, sealants, carpets and wall coverings will all be selected with low or no Volatile Organic Compounds (VOC's) off-gassing to improve the indoor environment quality of the dwellings. As a minimum the following limits must be achieved: • interior paints – 16g/L, • timber varnishes and wood stains – 75g/L, • multipurpose construction adhesives & sealants – 250 g/L, • timber flooring and laminate adhesives and sealants – 100g/L, • carpets – 0.5 mg/m^2/hr. **Formaldehyde Emission** All composite/engineered wood products shall be selected from low formaldehyde product alternative with emission rating of E0 or better.
Space Conditioning	The proposed project is to be provided with highly energy efficient mechanical heating/cooling system to ensure a comfortable indoor environment is achieved for the occupants. This will be delivered by multiple VRV systems, zoned to allow for refrigerant distances and building diversity. Simultaneous heating and cooling achievable on COP's exceeding NCC minimum requirements. As evident from the energy assessment (JV3 modelling) outcomes, the reliance for supplementary mechanical space conditioning has been improved through a combination of sensible massing design, the use of shading devices, and high-performance windows and thermal insulations.
Artificial Lighting	All artificial lighting installed shall only consist of energy efficient LED fixtures. Artificial lighting shall be controlled using motion and daylight sensors (or a combined motion/daylight sensory type device) to maximise opportunities for naturally-lit indoor environment and energy saving without sacrificing minimum illumination levels appropriate for the intended space use.
Acoustic Comfort	Internal rooms shall be sufficiently insulated from excessive external noise sources and minimise internal reverberation and noise levels to meet the minimum provision of the NCC and other industry codes and standards.
Daylight Access & Glare Management	A balance between daylight access and glare management is achieved through a combination of good glazing selection and external & internal shading devices. Nominated window system shall have glazing with high level of Visible Light Transmission (VLT) value to ensure generous level of daylight amenity for occupants. • VLT shall be ≥ 60% Hotel rooms have been designed with less than 7m depth, ensuring ample daylight access across the habitable room *(based on a best practice rule of thumb where room depth < 3x window height)* Windows are to be provided with occupant-controllable internal blinds to manage any potential glare issues.
External Views	All occupied areas (hotel) have been afforded views to the external to maintain visual connection between the occupants with their surrounding outside natural environment.

Energy Efficiency

The current development plan has identified the efficient use of energy as a key priority within the overall development proposal.

The analysis of the current design proposals against the Council's sustainability aspirations are summarised below:-

Assessment Criteria	Design Measures
Building Fabric	The proposed building has been assessed under a JV3 energy modelling protocols (NCC Section J provision) which resulted in a **11.8% improvement** in operational energy consumption than the minimum required by NCC. This outcome was achieved through careful and balanced selection of robust building fabric thermal performance. • Window systems: U-value 3.1 W/m²K SHGC 0.57 • Roof insulation: R-6.2m²K/W total construction value • External wall insulation: R-4.3m²K/W total construction value • Exposed floor insulation: R-2.0m²K/W total construction value • Internal wall (exposed to unconditioned areas) insulation: R-1.8 m²K/W The energy modelling simulation considers project specific geographical and climatic data, building and surrounding shading/overhangs, architectural design/features of the building and building fabric performance. Assessment was conducted on hourly energy performance on an annual basis.
Air Leakage	Potential for building air leakage shall be minimised to avoid occupant discomfort and associated excessive energy costs. Air leakage minimisation shall be achieved through best practice construction methods complying to NCC provision for building sealing.
Shading	External shading has been designed to offer additional degree of solar control for the windows aimed to minimise excessive solar gains during cooling period and allow beneficial heating during heating period by taking advantage of seasonal sun angles.
On-site Energy Generation	To further reduce reliance on grid energy, the project has proposed the installation of on-site energy generation system. • A 3kW Solar Photovoltaic (PV) array to be mounted on the roof areas, installed flushed with roof surface The proposed on-site energy generation initiatives shall provide an offset to the building peak and operational demand for grid electricity, hence reducing energy costs, reliance on the grid supply, and overall carbon footprint of the building.
Greenhouse Gas Emission & Peak Demand Reduction	Greenhouse gas emission for the proposed building has been minimised and peak demand reduced as a result of the following initiatives. • Robust thermal design of the building as demonstrated by improvement in energy performance over the minimum NCC requirements • Passive building designs to reduce reliance on supplementary, energy consuming building services operation (e.g. solar shading, high VLT windows) • Energy efficient equipment and system operations (motion/occupancy sensors, fan motor VSD's) • Integration of on-site energy generation initiatives
HVAC System Efficiency	Air Conditioning System All AC system nominated shall have energy efficiency rating of at least 10% better than minimum requirement of the NCC:

	- Packaged AC (Heat Pump) minimum seasonal COP/EER: o Cooling: 3.8 o Heating: 3.5 Mechanical gas water heater (i.e. boiler) to achieve a minimum efficiency of 90% or better. Ventilation Fans HVAC fans to have minimum energy efficiency in line with NCC 2016 vol.1 Specification J5.2a Table 3a, 3b, 4a and 4b. Exhaust fans installed in toilet and shower amenities shall be interlinked with light switch operations or occupancy/motion sensor to allow for energy efficient operation. Common and service area ventilation system shall be controlled using programmable timers.
Energy Efficient Appliances	All appliances installed for the project shall have a minimum Energy Rating of 1-star below the best Energy Rating available in the market *for the type and capacity*. These include: ▪ Refrigerators ▪ Domestic hot water heater
Lighting Power Density	Lighting power density shall be designed to achieve 20% less than the minimum requirement of the NCC throughout. Motion sensors shall be installed to all transient and back of house/services areas to minimise operation energy consumption. External and common area lighting shall be controlled using programmable timers, occupancy sensors or a combination of both.
Energy Sub-metering	Energy consumption of each tenancy, hotel components and common area shall be sub-metered separately to allow for usage monitoring and management

Water Efficiency

To reduce the environmental footprint of the development, a rain water harvesting system has been installed to serve the development and address water sensitive urban design and stormwater management for the site.

The current residential development addresses water efficiency through the following initiatives:

Assessment Criteria	Design Measures
Water Efficient Appliances	All fixtures nominated for the project shall have the following minimum water efficiency rating based on WELS rating standard. • Taps, all (kitchen, bathrooms, etc) – 6 Star WELS • Showerheads – 3 Star WELS with flow >9L/min but ≥7.5L/min • WC's – 5 Star WELS • Urinals – 6 Star WELS • Dishwashers – 5 Star WELS
Rainwater Harvesting	Rainwater harvesting system is proposed for the project. Rainwater shall be collected from the building roof & hotel balconies and stored in collection tanks located in lower basement services area before distributed to serve the building, hence reducing consumption/demand for potable water. Captured rainwater shall be utilised for common toilet flushing, landscape irrigation and bin washdown purposes. A total of 7,200L rainwater tank capacity shall be provided.
Water Sub-metering	Water consumption of each tenancy and common area shall be sub-metered separately to allow for usage monitoring and management
Landscape Irrigation	Landscape design shall be based on a selection of native and draught tolerant vegetation species. Landscape irrigation shall utilise captured rainwater.
Heat Rejection Water	No water-based heat rejection system is specified for the project. The mechanical system nominated for the project (i.e. reverse-cycle heat pumps) relies on ambient air to reject heat hence does not consume water in operation.

Stormwater Management

The design for the current residential development recognises that by improving the attenuation of the stormwater run-off from the site above the original 'Sustainability Statement" benchmark targets that the project has the potential to improve the natural ecosystem health and improve natural ecology well beyond the site boundary. In order to assist with improving stormwater quality and natural run-off, the current design implements the following on-site initiatives:-

Assessment Criteria	Design Measures
WSUD (STORM/MUSIC Rating)	The project recognises that by reducing stormwater run-off from the site the project has the potential to improve natural ecosystem health and improve natural ecology well beyond the site boundary. To reduce the environmental footprint of the development, a rainwater harvesting system has been proposed as a sensible option to offset potable water demand for landscape irrigation, toilet flushing and bin washing purposes. The rainwater tank storage will assist in ensuring the project achieves effective Water Sensitive Urban Design and Best Practice standards with regards to urban stormwater management. Best practice ESD guidelines recommend a project assesses stormwater performance using Melbourne Water's STORM online calculator or a MUSIC model. This development has been assessed using the Melbourne Water's STORM online calculator and achieved a 109% STORM compliant rating, via the incorporation of 7,200L rainwater tank (80% reliability) which collects rainwater from roofs and balconies. Please refer to the Stormwater Management (WSUD) report prepared for the development for more details.

Sustainable Transport

Assessment Criteria	Design Measures
Public Transport	The project site is well served by several public transport services within proximity: • Bus route 246 - 80m radius from site • Bus route 605 - 300m radius from site • Tram Route 70 - 82m radius from site • Richmond Train Station - within 250m radius from site
Car Parking Provision	The project recognises the importance of encouraging commuters to opt for more sustainable mode of transportation, therefore have completely remove on-site car parking provision. Please refer to the traffic engineer's report for a detailed assessment in regards to car parking provision, in relation to Council's specific requirements under residential hotel/restaurant establishment.
Bicycle Parking Provision & End of Trip Facility	Bicycle parking spaces for the building will be provided as follows, in-line with Table 1 Clause 52.34-5 Bicycle spaces of the Planning Scheme

Use	Employee /Resident	Visitor /Shopper	Planning Scheme Req's (min)	Proposed parking spaces	End of Trip Facility
Hotel	1 to each 25 sq m of bar floor area available to the public, plus 1 to each 100 sq m of lounge floor area available to the public	1 to each 25 sq m of bar floor area available to the public, plus 1 to each 100 sqm of the lounge floor area available to the public	Employee: 2 Visitor: 2	Employee: 12 Visitor: 2	Showers: 2 Lockers: 12
Restaurant	1 to each 100 sq m of floor area available to the public	2 plus 1 to each 200 sq m of floor area available to the public if the floor area exceeds 400 sq m	Employee: 4 Visitor: 4		

	Please refer to the traffic engineer's report produced by Traffix Group for a detailed assessment in regards to bicycle parking provision, in relation to Council's specific requirements under residential hotel/restaurant establishment.
Low Emission Vehicles	N/A
Car Sharing	N/A
Project Specific Travel Plan	A development specific Travel Plan has been provided for the proposed building once further developed and will be submitted separately to support the planning application. This travel plan identifies alternative (Green) Transport modes identified in Appendix A of the report (Traffix Group – 10 Dec 2019, Ref G27545L-01D)

Waste Management

In order to ensure effective waste management at both a constructive and operational stage, the following initiatives are included within the current developments:

Assessment Criteria	Design Measures
Waste Separation	The proposed building shall be provided with waste bins stored within the centralised waste areas located within refuse room on ground floor. General waste and recycled waste bins shall be provided with clear signage. Organic waste separation will also be encouraged in the kitchen/food preparation areas with an organic collection bin (colour coded) provided for within the bin store. The proposed tenancies shall be provided with bins dedicated for general waste and co-mingled recycling waste to allow and encourage for ease of waste separation at source by the occupants. Bins shall be distributed uniformly across the tenancy floors to ensure ease of access by all future occupants.
Operation Waste Management Plan	With regards to the reduction of operational building waste, a site-specific Waste Management Plan shall be made available to future owners/tenants of the building. Waste Management Plan has been developed in accordance to best practice guide to waste management system. The design of the facility shall incorporate an allowance for recycling throughout the waste collection facilities. Provision for effective recycling waste storage – dedicated recycling and waste storage facilities shall be included within the design to enable greater recycling rates from operational waste streams. Please refer to the Waste Management Plan (WMP) report produced by LiD Consulting submitted as part of this town planning application for more details.

Material Selection

In order to reduce the impact of the development's construction on the environment sustainable material selection has been considered through the following initiatives:

Assessment Criteria	Design Measures
FCS or PEFC timber	95% of timber on site (by cost) to use FCS or PEFC accredited products
Material Reduction through Design	Speedfloor system (aerated concrete) reducing floor slab thickness to 120mm, displacing Portland Cement content. Reduced floor slab and weight improves thermal prosperities while reducing structural weight and supporting columns.
Low Embodied Energy Material	Cold-rolled steel products use less energy in manufacture than hot-rolled products. Structural material is recyclable if demolition or future disassembly occurs.

Urban Ecology

In order to protect and enhance the local biodiversity and urban ecology, the development seeks to address this sustainable category through the following on-site initiatives:

Assessment Criteria	Design Measures
Re-use of previously developed urban site	The proposed development is re-using a previously developed project site, which minimises the impact on ecological value in the area.
Site Ecological Value	The proposed development has been able to retain the site ecological value by maintaining the percentage of built area relative to landscaped/soft permeable land area. Hence the proposed development has not detrimentally impact on overall ecological value of the site relative to the previous conditions.
Sustainable Landscaping	Landscape design shall consist of a selection of native and draught-tolerant species.
Communal Areas	Communal areas are provided at roof level, accessible to the general public and hotel patrons.
Minimal Light Spill	Minimal light spill beyond the site boundaries via a suitable external lighting design, including no up-lighting to the night sky. The external lighting design is consistent with the industry best practice.

Construction & Building Management

Assessment Criteria	Design Measures
Environmental Policies During Construction	Builder to implement an Environmental Management Plan in line with ISO 14001 relating to activities carried out during construction Strategy to achieve 80% diversion of construction waste (by mass) from landfill to be demonstrated
Utility Sub-Metering	The following usage shall be sub-metered separately between each tenant as well as the common area: • Electricity energy consumption • Gas energy consumption • Water consumption
Building Tuning	A minimum of 12 months building tuning period shall be allowed for to fine-tune all mechanical heating, cooling and ventilation system installed in the building. The proposed building is to be re-commissioned at the end of the 12 months building tuning period.

APPENDIX I – BESS REPORT

BESS Report

This BESS report outlines the sustainable design commitments of the proposed development at 375 Punt Rd Cremorne VIC 3121. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Yarra City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

375 Punt Rd, Cremorne 3121 Cremorne

Site area: 450 m^2 · Building Floor Area: 2475 m^2 ·
Date of Assessment: 27 Apr 2020 ·
Version: V4, 1.6.1-B.268 ·
Applicant: m.purnama@formengineers.com.au

Project Identifier
E8166925

Published
http://bess.net.au/projects/E8166925-V1

Your BESS score is

+ 54%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

50% + Best Practice

70% + Excellence

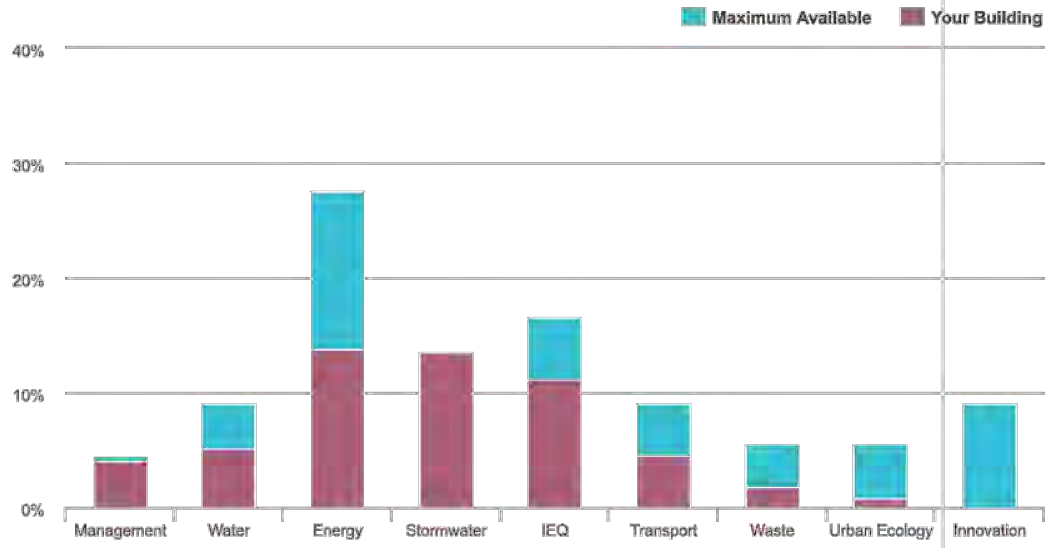
% of Total	Category	Score	Pass
4 %	Management	86 %	
5 %	Water	57 %	✓
14 %	Energy	50 %	✓
14 %	Stormwater	100 %	✓
11 %	IEQ	67 %	✓
4 %	Transport	50 %	
2 %	Waste	33 %	
1 %	Urban Ecology	12 %	
0 %	Innovation	0 %	

Building Composition

Non-Residential Spaces

Other building	1,105 m^2
Other building	1,370 m^2

How did this Development Perform in each Environmental Category?



Sustainable design commitments by category

The sustainable design commitments for this project are listed below. These are to be incorporated into the design documentation and subsequently implemented.

Management

88% - contributing 4% to overall score

Credit	Disabled	Scoped out	Score
Management 1.1 Pre-Application Meeting			100 %
Management 2.3 Thermal Performance Modelling - Non-Residential			100 %
Management 3.2 Metering			100 %
Management 3.3 Metering			100 %

Management 1.1 Pre-Application Meeting 100%

Score Contribution	This credit contributes 37.5% towards this section's score.
Aim	To encourage the involvement of suitably qualified ESD professionals in the project team from the early design stage.

Questions

Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?

Yes

Management 2.3 Thermal Performance Modelling - Non-Residential 100%

Score Contribution	This credit contributes 25.0% towards this section's score.
Aim	To encourage and recognise developments that have used modelling to inform passive design at the early design stage

Questions

Has preliminary modelling been undertaken in accordance with either BCA Section J (Energy Efficiency), NABERS or Green Star?

Yes

Management 3.2 Metering 100%

Score Contribution	This credit contributes 12.5% towards this section's score.
Aim	To provide building users with information that allows monitoring of energy and water consumption

Questions

Have utility meters been provided for all individual commercial tenants?

Yes

Management 3.3 Metering 100%

Score Contribution	This credit contributes 12.5% towards this section's score.
Aim	To provide building users with information that allows monitoring of energy and water consumption

Questions

Have all major common area services been separately submetered?

Yes

Water 57% - contributing 5% to overall score

Credit	Disabled	Scoped out	Score
Water 1.1 Potable water use reduction			40 %
Water 3.1 Water Efficient Landscaping			100 %
Water 4.1 Building Systems Water Use Reduction			100 %

Water Approachs

What approach do you want to use Water?	Use the built in calculation tools

Do you have a reticulated third pipe or an on-site water recycling system?	Yes
Are you installing a swimming pool?	No
Are you installing a rainwater tank?	Yes

Reticulated third pipe or an on-site water recycling systems

Recycled Profile Name	Third pipe

Water fixtures, fittings and connections

	CLASS 6	CLASS 3
Showerhead	Scope out	3 Star WELS (>= 7.5 but <= 9.0) (minimum requirement)
Bath	Scope out	Small Square Tub/ Combined Shower
Kitchen Taps	>= 6 Star WELS rating	>= 6 Star WELS rating
Bathroom Taps	>= 6 Star WELS rating	>= 5 Star WELS rating
Dishwashers	>= 5 Star WELS rating	Scope out
WC	>= 5 Star WELS rating	>= 5 Star WELS rating
Urinals	>= 6 Star WELS rating	Scope out
Washing Machine Water Efficiency	Scope out	Scope out
Which non-potable water source is the dwelling/space connected to?	RW TANK 1 & 2	-1
Non-potable water source connected to Toilets	Yes	No
Non-potable water source connected to Laundry (washing machine)	No	No
Non-potable water source connected to Hot Water System	No	-

Rainwater Tanks

	RW TANK 1 & 2
Name	RW TANK 1 & 2
What is the total roof area connected to the rainwater tank? Square Metres	303.5

	RW TANK 1 & 2
Tank Size Litres	7200.0
Will this tank be connected to the reticulated third pipe or onsite water recycling system?	Yes
Irrigation area connected to tank Square Metres	10.5
Is connected irrigation area a water efficient garden?	Yes
Other external water demand connected to tank? Litres/Day	0.0

Water 1.1 Potable water use reduction 40%

Score Contribution	This credit contributes 71.4% towards this section's score.
Aim	Water 1.1 Potable water use reduction (interior uses) What is the reduction in total water use due to efficient fixtures, appliances, and rainwater use? To achieve points in this credit there must be >25% potable water reduction. You are using the built in calculation tools. This credit is calculated from information you have entered above.
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.

Calculations

Reference (kL)

4002

Proposed (excluding rainwater and recycled water use) (kL)

3073

Rainwater or recycled water supplied (Internal + External) (kL)

190

Proposed (including rainwater and recycled water use) (kL)

2882

% Reduction in Potable Water Consumption Percentage %

27 %

Water 3.1 Water Efficient Landscaping 100%

Score Contribution	This credit contributes 14.3% towards this section's score.
Aim	Are water efficiency principles used for landscaped areas? This includes low water use plant selection (e.g. xeriscaping). Note: food producing landscape areas and irrigation areas connected to rainwater or an alternative water source are excluded from this section.

Questions

Will water efficient landscaping be installed?

Yes

Water 4.1 Building Systems Water Use Reduction 100%

Score Contribution	This credit contributes 14.3% towards this section's score.
Aim	Will the project minimise water use for building systems such as evaporative cooling and fire testing systems?

Questions

Where applicable, have measures been taken to reduce potable water consumption by >80% in the buildings air-conditioning chillers and when testing fire safety systems?

Yes

Energy 50% - contributing 14% to overall score

Credit	Disabled	Scoped out Score
Energy 1.1 Thermal Performance Rating - Non-Residential		12 %
Energy 2.1 Greenhouse Gas Emissions		100 %
Energy 2.3 Electricity Consumption		100 %
Energy 2.4 Gas Consumption		100 %
Energy 3.1 Carpark Ventilation		N/A
Energy 3.7 Internal Lighting - Non-Residential		100 %
Energy 4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A
Energy 4.2 Renewable Energy Systems - Solar		100 %

Are you installing a solar photovoltaic (PV) system?	Yes
Are you installing any other renewable energy system(s)?	No
Gas supplied into building	Natural Gas
Are you installing a cogeneration or trigeneration system?	No

Non-Residential Spaces Energy Profiles

		CLASS 6	CLASS 3
Heating, Cooling & Comfort Ventilation - Electricity - baseline	kWh	15048.3	37596.7
Heating, Cooling & Comfort Ventilation - Electricity - proposed	kWh	13293.0	36020.8
Heating - Gas - baseline	MJ	297.5	743.2
Heating - Gas - proposed	MJ	255.7	638.8
Heating - Wood - baseline	MJ	0.0	0.0
Heating - Wood - proposed	MJ	0.0	0.0
Hot Water - Electricity - baseline	kWh	0.0	0.0
Hot Water - Electricity - proposed	kWh	0.0	0.0
Hot Water - Gas - baseline	MJ	100.0	100.0
Hot Water - Gas - proposed	MJ	100.0	100.0
Peak Thermal Cooling Load - Baseline	kW	12.0	65.0
Peak Thermal Cooling Load - Proposed	kW	8.0	65.0

Solar Photovoltaic systems

		Rooftop PV
Name		Rooftop PV
System Size (lesser of inverter and panel capacity)	kW peak	3.0
Orientation (which way is the system facing)?		North
Inclination (angle from horizontal)	Angle (degrees)	5.0

Energy 1.1 Thermal Performance Rating - Non-Residential 12%

Score Contribution	This credit contributes 40.0% towards this section's score.
Aim	Reduce reliance on mechanical systems to achieve thermal comfort in summer and winter - improving comfort, reducing greenhouse gas emissions, energy consumption, and maintenance costs.

Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2016 BCA Volume 1 Section J)?

Calculations

Total Improvement Percentage %

11 %

Energy 2.1 Greenhouse Gas Emissions 100%

Score Contribution	This credit contributes 10.0% towards this section's score.
Aim	Reduce the building's greenhouse gas emissions
Criteria	Are greenhouse gas emissions >10% below the benchmark?

Calculations

Reference Building with Reference Services (BCA only) kg CO2

16122.1

Proposed Building with Proposed Services (Actual Building) kg CO2

14241.8

% Reduction in GHG Emissions Percentage %

11 %

Energy 2.3 Electricity Consumption 100%

Score Contribution	This credit contributes 10.0% towards this section's score.
Aim	Reduce consumption of electricity
Criteria	Is the annual electricity consumption >10% below the benchmark?

Calculations

Reference kWh

15048.3

Proposed kWh

13293.0

Improvement Percentage %

11 %

Energy 2.4 Gas Consumption 100%

Score Contribution	This credit contributes 10.0% towards this section's score.
Aim	Reduce consumption of electricity
Criteria	Is the annual gas consumption >10% below the benchmark?

Calculations

Reference MJ

397.5

Proposed MJ

355.7

Improvement Percentage %

10 %

Energy 3.1 Carpark Ventilation N/A

This credit was scoped out: No reason provided

Energy 3.7 Internal Lighting - Non-Residential 100%

Score Contribution	This credit contributes 10.0% towards this section's score.
Aim	Reduce energy consumption associated with internal lighting

Questions

Is the maximum illumination power density (W/m2) in at least 90% of the relevant building class at least 20% lower than required by Table J6.2a of the NCC 2016 BCA Volume 1 Section J (Class 2 to 9)?

Yes

Energy 4.1 Combined Heat and Power (cogeneration / trigeneration) N/A

This credit was scoped out: No cogeneration or trigeneration system in use.

This credit was disabled: No cogeneration or trigeneration system in use.

Aim	Reduce energy consumption
Criteria	Does the CHP system reduce the class of buildings GHG emissions by more than 25%?

Energy 4.2 Renewable Energy Systems - Solar 100%

Score Contribution	This credit contributes 5.0% towards this section's score.
Aim	To encourage the installation of on-site renewable energy generation
Criteria	Does the solar power system provide 5% of the estimated energy consumption of the building class it supplies?

Calculations

Solar Power - Energy Generation per year kWh

3498.7

% of Building's Energy Percentage %

26 %

Stormwater 100% - contributing 14% to overall score

Credit	Disabled	Scoped out	Score
Stormwater 1.1 Stormwater Treatment			100 %

Which stormwater modelling are you using? Melbourne Water STORM tool

Stormwater 1.1 Stormwater Treatment 100%

Score Contribution	This credit contributes 100.0% towards this section's score.

Aim	To achieve best practice stormwater quality objectives through reduction of pollutant load (suspended solids, nitrogen and phosphorus)
Criteria	Has best practice stormwater management been demonstrated?

Questions

STORM score achieved

109

Calculations

Min STORM Score

100

IEQ

67% - contributing 11% to overall score

Credit	Disabled	Scoped out	Score
IEQ 1.4 Daylight Access - Non-Residential			67 %

IEQ 1.4 Daylight Access - Non-Residential

67%

Score Contribution	This credit contributes 100.0% towards this section's score.
Aim	To provide a high level of amenity and energy efficiency through design for natural light.
Criteria	What % of the nominated floor area has at least 2% daylight factor?

Questions

% Achieved ?

60 %

Transport

50% - contributing 4% to overall score

Credit	Disabled	Scoped out	Score
Transport 1.4 Bicycle Parking - Non-Residential			100 %
Transport 2.1 Electric Vehicle Infrastructure			N/A
Transport 2.2 Car Share Scheme			N/A
Transport 2.3 Motorbikes / Mopeds			N/A

Transport 1.4 Bicycle Parking - Non-Residential 100%

Score Contribution	This credit contributes 50.0% towards this section's score.
Aim	To encourage and recognise initiatives that facilitate cycling
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?

Questions

Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?

Yes

Bicycle Spaces Provided ?

12

Transport 2.1 Electric Vehicle Infrastructure N/A

This credit was scoped out: No reason provided

Aim	To facilitate the expansion of infrastructure to support electric vehicle charging

Transport 2.2 Car Share Scheme N/A

This credit was scoped out: No reason provided

Aim	To encourage and recognise initiatives that help to minimise the use of private passenger vehicles

Transport 2.3 Motorbikes / Mopeds N/A

This credit was scoped out: No reason provided

Aim	To encourage and recognise initiatives that help to minimise the use of private passenger cars

Waste

33% - contributing 2% to overall score

Credit	Disabled	Scoped out	Score
Waste 2.2 - Operational Waste - Convenience of Recycling			100 %

Waste 2.2 - Operational Waste - Convenience of Recycling

100%

Score Contribution	This credit contributes 33.3% towards this section's score.
Aim	To minimise recyclable material going to landfill

Questions

Are the recycling facilities at least as convenient for occupants as facilities for general waste?

Yes

Urban Ecology

12% - contributing 1% to overall score

Credit	Disabled	Scoped out	Score
Urban Ecology 1.1 Communal Spaces			100 %

Urban Ecology 1.1 Communal Spaces

100%

Score Contribution	This credit contributes 12.5% towards this section's score.
Aim	To encourage and recognise initiatives that facilitate interaction between building occupants

Criteria	Is there at least the following amount of common space measured in square meters : * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?

Questions

Common space provided Square Metres

211.0

Calculations

Minimum Common Space Required Square Metres

86

Innovation

0% - contributing 0% to overall score

Items to be marked on floorplans

0 / 8 floorplans & elevation notes complete.

Management 3.2: Individual utility meters annotated	Incomplete
Management 3.3: Common area submeters annotated	Incomplete
Water 3.1: Water efficient garden annotated	Incomplete
Energy 4.2: Floor plans showing location of photovoltaic panels as described.	Incomplete
Stormwater 1.1: Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips)	Incomplete
Transport 1.4: All nominated non-residential bicycle parking spaces	Incomplete
Waste 2.2: Location of recycling facilities	Incomplete
Urban Ecology 1.1: Size and location of communal spaces	Incomplete

Documents and evidence

0 / 6 supporting evidence documentation complete.

Management 2.3: Preliminary modelling report	Incomplete
Energy 1.1: Energy Report showing calculations of reference case and proposed buildings	Incomplete
Energy 3.7: Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.	Incomplete
Energy 4.2: Specifications of the solar photovoltaic system(s).	Incomplete
Stormwater 1.1: STORM report or MUSIC model	Incomplete
IEQ 1.4: A short report detailing assumptions used and results achieved.	Incomplete

APPENDIX II – ARCHITECTURAL PLANS

APPENDIX III – NCC BCA SECTION J COMPLIANCE REPORT

Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP

FORM

PROPOSED HOTEL DEVELOPMENT

375-377 PUNT ROAD
CREMORNE, VICTORIA 3121

REPORT

NCC SECTION J PART JV3

PROJECT NO. 17070

17070 BCA-ESD-01
Rev Date
1 27/04/20

for A. GENSER & ASSOC. (AUST) PTY LTD

ABN 93 148 858 888
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Proposed Hotel Development
375-377 Punt Rd, Cremorne, VIC 3121
NCC SECTION J PART JV3 REPORT

REVISION

Revision	Date	Comment	Prepared By	Approved By
0	12/12/2019	Town Planning Amendment	MB	MB
1	27/04/2020	Town Planning Amendment	MB	MB

CHECKED AND APPROVED BY

NAME: Mark Barrie

SIGNATURE: 

DATE: **27 April 2020 – Revision 1**

Qualifications to this Report

The following qualifications apply to this report:

- This JV3 report has incorporated the architectural form of the building as currently proposed. If the insulation values and glazing performance values identified in this report are achieved, then the development's façade performance will achieve compliance under a JV3 assessment.
- The system U values for glazing nominated in this report include both the frame and the glass performance
- It is assumed in this report that all insulation values are achieved without crushing of insulation and with the appropriate air spaces required for foil faced products.

Limitations

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Proposed Hotel Development
375-377 Punt Rd, Cremorne, VIC 3121
NCC SECTION J PART JV3 REPORT

CONTENTS

QUALIFICATIONS TO THIS REPORT **2**
LIMITATIONS **2**
INTRODUCTION **4**
SECTION J OF THE NCC VOLUME ONE 4
JV3 MODELLING PROCESS 5
CASE 1:- REFERENCE BUILDING WITH REFERENCE SERVICES 5
CASE 2:- PROPOSED BUILDING WITH REFERENCE SERVICES 5
CASE 3: -PROPOSED BUILDING WITH PROPOSED SERVICES 5
TEST REFERENCE YEAR **5**
GENERAL PROJECT INFORMATION 6
STANDARD MODELLING INPUTS **7**
BUILDING FORM 7
INTERNAL LOADS 7
Daily Occupancy and Operating Profile 7
Lighting Levels 7
Lighting Controls 7
SENSIBLE AND LATENT INTERNAL HEAT GAIN PER OCCUPANT 8
OCCUPANT DENSITY 8
INTERNAL HEAT GAINS FROM APPLIANCES AND EQUIPMENT 8
BUILDING SERVICES SIMULATIONS 8
Space Temperature Range 8
Availability of Plant 8
Mechanical Ventilation Rate – Outside Air 8
Exhaust Ventilation System Operation 9
Infiltration Air Change Rate 9
Heat Migration 9
HOT WATER SUPPLY 9
REFERENCE BUILDING WITH REFERENCE SERVICES (CASE 1) **10**
BUILDING FABRIC 10
GLAZING 10
HEATING AND AIR CONDITIONING - REFERENCE SYSTEM 10
PROPOSED BUILDING WITH REFERENCE SERVICES (CASE 2) **11**
BUILDING FABRIC 11
SHADING AND GLAZING 11
External Shading 11
Glazing Performance 11
HEATING AND AIR CONDITIONING DESIGN PARAMETERS 12
PROPOSED BUILDING WITH PROPOSED SERVICES (CASE 3) **12**
ON-SITE RENEWABLE ENERGY GENERATION ..... **ERROR! BOOKMARK NOT DEFINED.**
MODEL VERIFICATION **12**
TEMPERATURE CONTROL 12
ENERGY CONSUMPTION RESULTS **13**
MODELLING DISCLAIMER 13
CONCLUSION **14**

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INTRODUCTION

This report summarises the output from our JV3 modelling of the new hotel development proposed at 375 Punt Road, Cremorne and identifies a route to compliance in line with the NCC BCA 2016 Volume 1 Amendment 1 Section J Requirements.

This assessment has been based on the most up-to-date proposal drawings at time of writing and identifies the building's fabric performance requirements that must be achieved in order to comply with the relevant building codes.

This analysis was carried out in order to confirm that the estimated energy consumption for the site was compliant with the NCC BCA 2016 Volume 1 Amendment 1 Section J Energy Efficiency JV3 – Verification using a reference building. The modelling inputs were based on BCA Specification JV simulation requirements

The current glazing proposals calculated under the Section J Deemed to Satisfy (DTS) pathway are unable to achieve a uniform performance throughout

As it is undesirable to have differing façade thermal performances and varying tints of glass throughout the building, we have elected to demonstrate building code compliance of the proposed design under a computer modelling verification method permissible within section JV of the building codes.

This report summarises the findings of the computer modelling assessment and demonstrates a route to compliance through enhancing the thermal performance of certain elements of the building fabric providing the ability for poor performance of different building elements to be traded off against higher performance elsewhere allowing a uniform glazing selection to be achieved throughout.

Section J of the NCC Volume One

Section J of the NCC Volume One sets energy efficiency requirements for the various classifications of building types while still maintaining acceptable internal environmental conditions for occupants.

The requirements are designed to reduce the use of artificial heating and cooling, improve the energy performance of lighting, conditioning and ventilation, and reduce the energy loss that occurs through air leakage.

These reductions are achieved by setting specific design criteria by which the building must be designed and built. When these criteria cannot be met the building must prove that it produces a result which is equal or better than the set design criteria, in accordance with a specific verification method known as JV3.

JV3 Modelling Process

Verification Method JV3 (Verification using a Reference Building) is verified when it is determined that the estimated annual energy consumption of a Proposed Building with its services is not more than that of the estimated annual energy consumption of a Reference Building when:-

i. The Proposed Building is modelled with its proposed façade and the proposed services, and
ii. The Proposed Building is modelled with its proposed façade and the same services as the Reference Building

The following energy modelling simulations are required to be created to enable the building to be assessed in accordance with Verification Method JV3.

Case 1:- Reference Building with Reference Services

The Reference Building represents the Proposed Building layout, with NCC Volume One (minimum) compliant building fabric. The Reference Building has deemed to satisfy HVAC and building services elements in accordance with NCC Volume One Specification JV requirements.

The extent and location of glazing for the Reference Building model is the same as that of the Proposed Building with its roof, shading elements and glazing thermal properties all being compliant to Deemed-to-Satisfy requirements.

Case 2:- Proposed Building with Reference Services

The simulated energy model is a thermally accurate representation of the Proposed Building. However, this energy model has the Reference Building's services applied to it so that the façade becomes the only variable between the reference building and the proposed building.

Case 3: -Proposed Building with Proposed Services

All services systems must be compliant with the BCA Volume One, Section J requirements with certification to be provided by the relevant services consultant as part of the building surveyor approval process. As a result, if Case 2 is compliant then Case 3 will also be compliant and is therefore not tested.

TEST REFERENCE YEAR

All of the above scenarios are modelled against the same set of climatic data, known as a test reference year.

A test reference year (TRY) is a set of measured hourly values for dry temperature, for global, diffuse and direct normal solar radiation, and for wind velocity. The figures nominated are selected from multiple year data sets of observations for a given location and are in sequence, such that the resulting TRY is "typical" for that specific location.

Proposed Hotel Development
375-377 Punt Rd, Cremorne, VIC 3121
NCC SECTION J PART JV3 REPORT

General Project Information

Property Title	Proposed Hotel Development 375-377 Punt Road, Cremorne
Address	375-377 Punt Road, Cremorne, VIC 3121
Building Class and Use	The development has been modelled on the combination of NCC classifications: **Class 3 – Hotel and Class 6 – Restaurant/Café**
Number of storeys	6 Storeys with two levels of basements
NCC Volume One Climate Zone	Climate Zone 6
Verification Method	This building has been assessed under the NCC BCA Volume One Part JV3 – Verification using a Reference Building.

STANDARD MODELLING INPUTS

The assessment has been based on the building layout in following drawings set

- A. Genser and Associates Issue, Dated May 2019

The following modelling inputs are kept constant throughout all of the energy models based on NCC Volume One Specification JV simulation requirements.

Building Form

To ensure uniformity in the assessment the building form must remain the same for all of the building models; including roof geometry, floor plan, number of storeys, ground to lowest floor arrangements and size and location of glazing.

Internal Loads

The internal loads for both the Proposed and Reference Buildings are as per the design requirements stipulated in the NCC Volume One Section J.

Daily Occupancy and Operating Profile

Occupancy, lighting, equipment and HVAC plant throughout the site were estimated to operate in accordance with the NCC Volume One JV Specifications for the relevant NCC classifications.

Lighting Levels

Lighting loads allowances were incorporated into the energy model (see table below):

Zone	Lighting Load (W/m^2)
Services and Storage	5
Toilets	6
Circulation Areas	8
Bedroom	6
Offices	9
Living	10

Lighting Controls

Lights throughout the site were estimated to operate in accordance with the NCC Volume One JV Specification.

Sensible and Latent Internal Heat Gain per Occupant

The following allowances have been made for sensible and latent heat gain per person:

Description	Sensible Heat (W/person)	Latent Heat (W/person)
BCA Section J, JV Specification Allowance	75	55

Occupant Density

The following occupant density figures were utilised throughout the model as per the design requirements stipulated in the NCC Volume one Section D, Part D1, Table D1.13.

Zone	Occupant Density (m^2 per person)
Common areas	10

Internal Heat Gains from Appliances and Equipment

The following allowances have been made for sensible heat gain from equipment to all heating and cooling zones throughout the site as per the design requirements stipulated in NCC Volume One Section J, Specification JV, Table 2h:

Application	Internal Sensible Heat Gain Rate (W/m^2)
General Equipment – Class 3 Areas	5

Building Services Simulations

Space Temperature Range

In accordance with Specification JV Clause 2 (a) (i) the space temperature being within the range of 18°C DB to 26°C DB for 98% of the plant operation time.

- Cooling Load Set-points were designed to operate at 23°CDB.
- Heating Load Set-points were designed to operate at 21°CDB.

Availability of Plant

Plant was scheduled to operate in accordance with the Daily Occupancy and Operating Profile outlined above in Section 0 of this report. All mechanical services plant was assumed to be available for operation during these times.

Mechanical Ventilation Rate – Outside Air

It is understood that the building will be mechanically ventilated with the introduction of outside air at the following rates as per the design requirements stipulated in AS 1668.2:

Zone	Fresh Air Rate (L/s/person)
All	7.5

Exhaust Ventilation System Operation

All mechanical services exhaust ventilation systems were assumed to run at full speed in accordance with the HVAC operation profile previously outlined within this report. Operationally this allowance will be different as many of the fans will have differential pressure control to allow them to ramp up and down accordingly.

Infiltration Air Change Rate

In accordance with the NCC Volume One 2016 Specification JV, the following allowances have been made for sensible heat gain from equipment to all heating and cooling zones throughout the site:

Extract from NCC Volume One 2016 Section J Energy Efficiency JV3 (d) (i) (F)

"Infiltration values, for a perimeter zone of depth equal to the floor-to-ceiling height:

when pressurising plant is operating, 1.0 air changes per hour; and

when pressurising plant is not operating, 1.5 air changes per hour."

Heat Migration

The model generated for the site allowed for all associated internal wall construction types. This included internal stud walls, internal doors and windows where appropriate.

The heat load simulation then calculated the heat flow across all interconnecting zones during the simulation, which in turn was then incorporated into the energy simulation calculations.

Hot Water Supply

Domestic hot water energy consumption has been excluded from the calculation in accordance with the NCC Volume One 2016 Specification JV3 Part (e), which states;

"Where the annual energy consumption of the hot water supply or lifts and escalators are the same in the Proposed Building and the Reference Building, they may be omitted from the calculation of both the Proposed Building and the Reference Building."

REFERENCE BUILDING WITH REFERENCE SERVICES (CASE 1)

Building Fabric

The "Deemed-to-Satisfy" requirements for NCC Volume One Section J1 compliance were used to calculate the total thermal performance levels required for the opaque building elements. The following building fabrics were used to model the Reference Building.

Element	Reference Building Thermal Performance
External Wall	R 2.8 Total
Internal Walls between Conditioned & Unconditioned spaces	R 1.8 total
Roof	R 3.2 total
Slab on Ground	No requirements
Exposed / Suspended Floors	R 2.0 total
Roof lights	No rooflights/skylights in the building

Glazing

The glazed areas used for the Reference Building were calculated using the NCC Volume One Section J2 Glazing Calculator (Method 2). A maximum allowance for glazing was reached using the calculator based on an assessment of conditioned zones only.

Heating and Air Conditioning - Reference System

The following attributes were applicable to the deemed to satisfy HVAC system (serving conditioned areas):

Cooling COP:	2.7
Heating Efficiency:	0.8
Cooling Fuel:	Electricity
Heating Fuel:	Natural Gas
Air Supply System:	Zoned supply system with remote fan

PROPOSED BUILDING WITH REFERENCE SERVICES (CASE 2)

Building Fabric

Overall thermal performance of the building fabric are shown below.

Element	Proposed Building Thermal Performance
External Wall	R 4.3 total
Internal Walls between Conditioned & Unconditioned spaces	R 1.8 total
Roof	R 6.2 total
Slab on Ground	No requirements
Exposed / Suspended Floors	R 2.0 total
Roof lights	No roof lights/skylights in the building

Shading and Glazing

External Shading

External shading was applied to the model for the site in accordance with the allowance identified on the architect's latest drawings

Where applicable, these shading elements were assumed to be solid in construction and provided a direct reduction to the solar absorbance calculations within the heat load calculations. These results in turn were reflected in the energy estimation calculations.

Glazing Performance

The following table summarises the glazing thermal performance requirements to achieve compliance. Note these are whole of window properties, i.e. glass and frame combined:

External Glazing – Thermal properties of the window system including frame			
Floor	**U-value** (W/m^2K)	**SHGC**	**Example glazing system**
Glazing	3.1	0.57	Typically, double glazed system with aluminium frame and neutral tint

Heating and Air Conditioning Design Parameters

The following attributes were applicable to the deemed to satisfy HVAC system (to conditioned areas):

Cooling COP:	2.7
Heating Efficiency:	0.8
Cooling Fuel:	Electricity
Heating Fuel:	Natural Gas
Air Supply System:	Zoned supply system with remote fan

PROPOSED BUILDING WITH PROPOSED SERVICES (CASE 3)

All mechanical, electrical & hydraulic services systems are assumed to be compliant with the NCC Volume One, Section J DTS requirements and hence the Proposed Building with Proposed Services will achieve compliance with a JV3 modelling methodology.

Note: Certification of sections J5 – J8 will be provided by the relevant mechanical & electrical services consultant.

MODEL VERIFICATION

Temperature Control

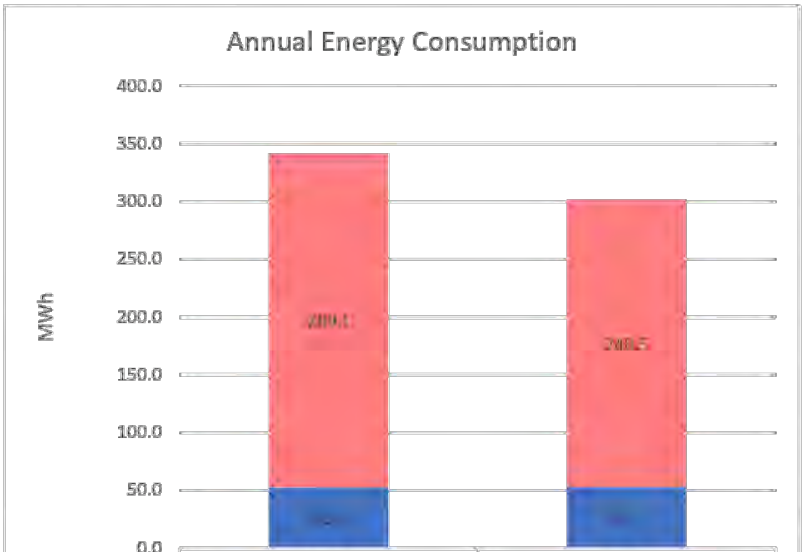
In accordance with Specification JV Clause 2 (a) (i) the space temperature of the Reference Building must be within the range of 18°C DB to 26°C DB for 98% of the plant operation time.

In order to verify this requirement, IES Virtual Environment's Vista analysis software module was utilised to assess the results for each of the nominated heating and cooling zones. A check was carried out to identify the percentage of total hours per annum (between this range) that the space temperature was outside this specified temperature band during the HVAC profile hours as defined within Section J of the NCC BCA. The results of this are noted below.

Location	Air temperature (°C) % hours in range	Air temperature (°C) % hours in range	Air temperature (°C) % hours in range
	< 18.00	18.00 to 26.00	> 26.00
Conditioned Spaces	0	100	0

ENERGY CONSUMPTION RESULTS

The following annual energy consumption has been taken from the IES Virtual Environment Vista results file for the site:



Heating MWh	289.1	248.5
Cooling MWh	52.6	53.1

Modelling Disclaimer

We note the test models constructed are basic in nature to minimise the number of variables which could affect the results and such do not fully reflect any specific real-life scenarios. The intent is to use the result to indicate the likely thermal performance to the subject building using an industry recognised simulation tool.

Due to the various limitations of a building simulation tool, modelling does not and cannot fully represent all of the intricacies of the building, its operation, and interaction with its surrounding environment. As a result, the computer model results only represent an interpretation of the potential performance of the subject building. No guarantee of building performance in practice can be based on modelling results alone.

CONCLUSION

The results of the modelling have demonstrated the proposed building annual energy consumption is compliant with approximately a **11.8%** margin of energy efficiency relative to the minimum performance requirements determined by modelling the reference building.

Based on the above, the proposed building design with the proposed building fabric thermal improvements meets the BCA requirements for building fabric performance via a JV3 modelling assessment.

We would further advise that it is incumbent on the design team to review and incorporate the identified thermal performance requirements contained within this report into the building design and project documentation.

APPENDIX IV – STORMWATER MANAGEMENT (WSUD) REPORT

FORM

PROPOSED HOTEL DEVELOPMENT

375-377 PUNT ROAD
CREMORNE, VICTORIA 3121

REPORT
STORM MANAGEMENT PLAN

PROJECT NO. 17070

17070 RPT-ESD-02
Rev Date
0 12/12/19

for A. GENSER & ASSOC. (AUST) PTY LTD

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Proposed Hotel Development
375-377 Punt Rd, Cremorne, VIC 3121
Stormwater Management Plan Report

REVISION

Revision	Date	Comment	Prepared By	Approved By
0	12/12/2019	Town Planning Amendment	MB	MB

CHECKED AND APPROVED BY

NAME: Mark Barrie

SIGNATURE: 

DATE: **12 December 2019 – Revision 0**

Qualifications to this Report

The following qualifications apply to this report:

- This Stormwater Management Plan report has been based on the architectural form of the building as currently proposed. Any changes proposed after the issue of this document is subject to re-assessment to ensure accuracy of the content of this report.
- This stormwater management report provides only recommendations on the best practice measures required during all construction activities. The Main Contractor is ultimately responsible to plan, manage and enforce the process to achieve required outcomes.

Limitations

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Proposed Hotel Development
375-377 Punt Rd, Cremorne, VIC 3121
Stormwater Management Plan Report

CONTENTS

QUALIFICATIONS TO THIS REPORT **2**
LIMITATIONS **2**
INTRODUCTION **4**
THE PROPOSED DEVELOPMENT **4**
STORMWATER MANAGEMENT & WSUD **4**
REGULATORY REQUIREMENT **5**
CITY OF YARRA PLANNING SCHEME ORDINANCE 5
STATE REGULATION (BEST PRACTICE BENCHMARK) 6
Tool of Assessment 6
NOMINATED MEASURES **7**
MELBOURNE STORM RATING REPORT **8**
SUMMARY **9**
APPENDIX 1 – SITE LAYOUT PLAN **10**

INTRODUCTION

Form Engineers has been engaged by the Client, **375-377 Punt Pty Ltd** to assess the proposed development at 375-377 Punt Road, Cremorne and prepare a Stormwater Management (Water Sensitive Urban Design) Response in support of a town planning application submission.

This report is based on the town planning drawing set submitted by the Client for the proposed development.

THE PROPOSED DEVELOPMENT

The proposed development is a 61-suite hotel across 5 storeys with restaurant/café facility at basement and ground levels.

The location is an existing, previously developed site, predominantly fronting Punt Road to the West, Rout Street to the South, and Huckerby Street to the East.

STORMWATER MANAGEMENT & WSUD

Typical new building developments often results in a reduction of "soft" surfaces (land & vegetation) through which rainwater naturally gets absorbed into the underground water table before flowing towards waterways and bays. Increase of "hard" surfaces reduces rainwater absorption and consequently increases above ground run off which detrimentally affects the timing, speed and volume of water flows into waterways and bays. These altered conditions may further impact the natural habitat and cause land erosion.

As a general rule, development should aim to retain as much as or increase pervious ground cover relative to existing condition and minimise impervious ground cover as not to disrupt the natural rainwater cycle process.

Rainwater that has fallen onto buildings and roads (otherwise known as stormwater) also typically contains a range of chemicals or pollutants which unless managed appropriately, could potentially harm natural rivers and creeks.

Water Sensitive Urban Design (WSUD) is an approach that ensures the management of these pollutants while encourages the recovery of valuable resources in the context of urban planning and design.

The WSUD method can include of a combination of stormwater treatment options in varying scales to achieve best practice stormwater management outcome:

- Rainwater tanks
- Raingardens
- Sediment Ponds
- Wetlands
- Swales

REGULATORY REQUIREMENT

City of Yarra Planning Scheme Ordinance

Clause 22.16 of the City of Yarra Planning Scheme requires a planning submission to be accompanied by a Water Sensitive Urban Design (WSUD) response which satisfies the objectives outlined under Clause 22.16-2.

In brief, the objectives of the WSUD response are:

- To achieve the best practice water quality performance objectives set out in the Urban Stormwater Best Practice Environmental Guidelines, CSIRO 1999
- To promote the use of water sensitive urban design, including stormwater re-use
- To mitigate the detrimental effect of development on downstream waterways, by the application of best practice stormwater management through water sensitive urban design for new development.
- To minimise peak stormwater flows and stormwater pollutants to improve the health of water bodies, including creeks, rivers and bays.
- To reintegrate urban water into the landscape to facilitate a range of benefits including microclimate cooling, local habitat and provision of attractive spaces for community use and wellbeing

In order to achieve these objectives, the following strategies have been considered for the proposed development:

- A combination of on-site measures and developer contributions to support integrated planning of stormwater quality
- Mitigation of stormwater pollution from construction site
- Minimising/eliminating any detrimental effect from stormwater and groundwater on wetlands and estuaries
- Incorporating Water Sensitive Urban Design (WSUD) techniques into developments

During Construction – Site Construction Management Practices

The proposed development is required to consider, plan and enforce a stormwater management measures within the scope of relevant site management plans during construction stages. WSUD design principles are to be used to minimise and/or mitigate any potential for soil erosion and litters which may degrade the quality of stormwater run-off from subject site. Generation and export of site sediment and other pollutants are common and must be managed. It is the Main Contractor's responsibility to ensure stormwater run-off quality achieves best practice outcome outlined in this report during construction activities.

The range of measures that may be applied include structural or vegetation measures and soil stabilisation techniques. Refer to the following for recommended eight control measures highlighting the main concepts for reducing pollution from construction sites:

1. Erosion control
2. Sediment collection
3. Site water control
4. Equipment storage and maintenance

5. Materials storage
6. Litter control
7. Building activity
8. Washdown practices

The proposed development is strongly encouraged to consider the above measures in developing the site management plan. For further information, suggestions and examples please refer to *Urban Stormwater Best Practice Environmental Management Guidelines*, available from CSIRO Publishing. The CSIRO guide also provides a checklist which may assist in developing site management plan.

State Regulation (Best Practice Benchmark)

The State Environment Protection Policies (SEPPs) which represents the best practice benchmark require stormwater quality treatment to be undertaken when the run-off from land surface is expected to cause non-compliance. To meet the minimum SEPP requirements, the following (post-construction phase) best practice outcomes must be achieved:

Pollutant Type	Receiving Water Objective	Current Best Practice Performance Objective
Suspended Solids	<90th percentile of 80mg/L	80% retention of typical urban annual load
Total Phosphorus	Base flow concentration <0.08mg/L	45% retention of the typical urban annual load
Total Nitrogen	Base flow concentration <0.9mg/L	45% retention of the typical urban annual load
Litter	No litter in waterways	70% reduction of typical urban annual load
Flows	Maintains flows at pre-urbanisation levels	Maintain discharges for the 1.5 year ARI at pre-development levels

Tool of Assessment

Software modelling such as MUSIC or Melbourne Water's STORM Calculator are the two most common and accepted tools to demonstrate how a proposed development would meet the stormwater management objectives for a building project. This report focuses on utilising Melbourne Water's STORM calculator (https://storm.melbournewater.com.au/) to conduct WSUD assessment and report on stormwater management outcome.

NOMINATED MEASURES

To comply with the minimum stormwater management requirements, the proposed development has nominated to integrate the following on-site measures and additional treatment:

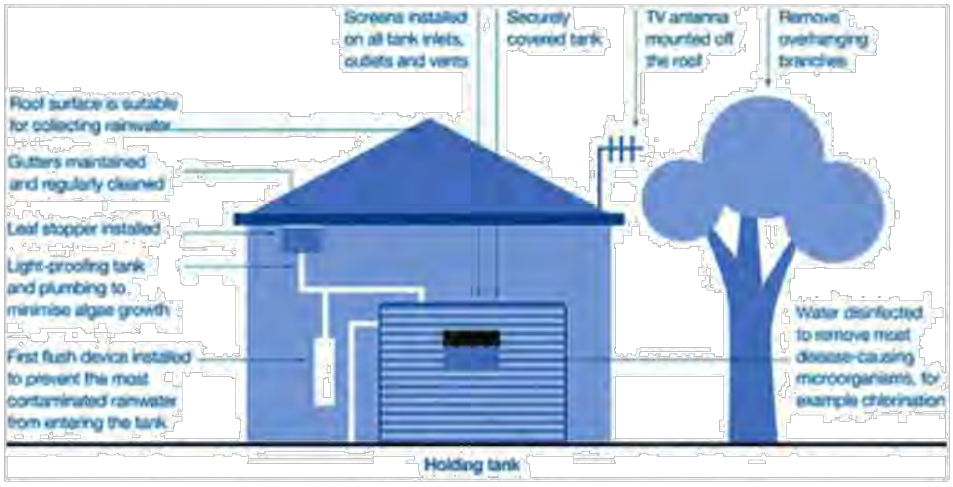
- To supply and install on-site rainwater tank(s), amounting to 7,200 L overall
  - The development proposes to install a combination of a 4,300 L tank and a 2,900 L tank in a lower basement location.
  - Rainwater would be harvested from the roof areas, including plant roof and roof terraces, and eastern balconies into above ground tanks, which is then utilised for toilet flushing, landscape irrigation, and bin washing purposes.
- To supply and install leave diverting rain heads and first flush diverters upstream of the tanks to divert gross pollutant prior to storing harvested rainwater in the tanks

Rainwater Tank

Rainwater tanks collects run-off which is harvested typically from impervious surfaces at roof and/or above ground balconies levels. Harvested water is directed into a storage tank and collected for later use to meet various demand in the building. One of the most common use for harvested rainwater is toilet flushing and landscape irrigation. Other uses may include bin/vehicle wash downs and laundry.

When correctly sized and installed, rainwater tanks work by capturing a portion of rainwater falling on a building which in turn reduces run-offs which otherwise would enter the waterways. In addition, rainwater harvesting also has the potential of reducing reliance and consumption of potable water which offers financial benefit to owners and occupants as well.

To maximise the benefit of this treatment, collected rainwater must be utilised as much as possible to create more space to store up more rainwater whenever it rains. Roof and downpipe designs, tank size and location all contribute towards an optimised outcome.



Basic guidelines for roof rainwater harvesting installation. (Image adapted from https://www.melbournewater.com.au/planning-and-building/stormwater-management/options-treating-stormwater/rainwater-tanks)

Rainwater tanks also require regular maintenance to ensure proper operation. Refer to the appendix section of this report for recommended regular and major maintenance procedures and regimes.

MELBOURNE STORM RATING REPORT

To demonstrate compliance with the minimum stormwater management requirement, the Melbourne STORM Calculator (https://storm.melbournewater.com.au/) has been utilised.

Refer to the following pages for output of the calculator tool which demonstrates a compliant development STORM rating of **109%** for the proposed development.

Melbourne Water **STORM Rating Report**

TransactionID:	885592
Municipality:	YARRA
Rainfall Station:	YARRA
Address:	375-377 Punt Road
	Cremorne
	VIC 3121
Assessor:	Form Engineers
Development Type:	Other
Allotment Site (m2):	451.60
STORM Rating %:	109

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Roof & Balconies	303.50	Rainwater Tank	7,200.00	60	162.40	80.00
Other Impervious	148.10	None	0.00	0	0.00	0.00

SUMMARY

A stormwater management review has been conducted on the proposed hotel development located at 375-377 Punt Road, Cremorne VIC 3121. The proposed development is required to demonstrate compliance to the City of Yarra requirements under Clause 22.16 of the Planning Scheme.

The Melbourne STORM Rating Calculator was utilised as the WSUD assessment tool, where the nominated stormwater management solution and additional treatment are listed as follows:

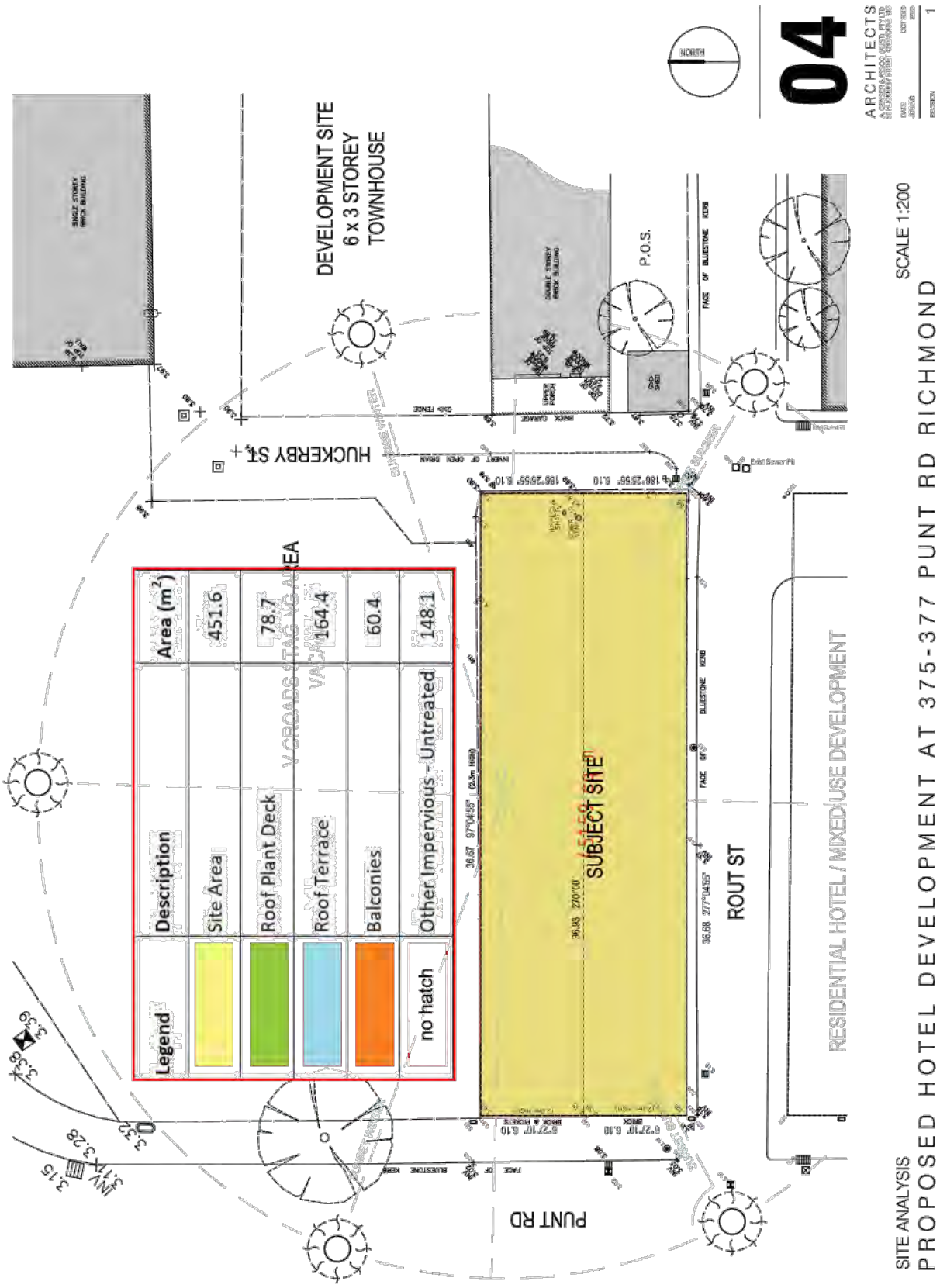
- To supply and install on-site rainwater tank(s), amounting to 7,200 L overall
  - The development proposes to install a combination of a 4,300 L tank and a 2,900 L tank in a lower basement location.
  - Rainwater would be harvested from the roof areas, including plant roof and roof terraces, and eastern balconies into above ground tanks, which is then utilised for toilet flushing, landscape irrigation, and bin washing purposes.
- To supply and install leave diverting rain heads and first flush diverters upstream of the tanks to divert gross pollutant prior to storing harvested rainwater in the tanks

Based on the site data and nominated solutions above, the Melbourne STORM Calculator tool generates a **compliant** stormwater management outcome with an overall **STORM Rating of 109%**.

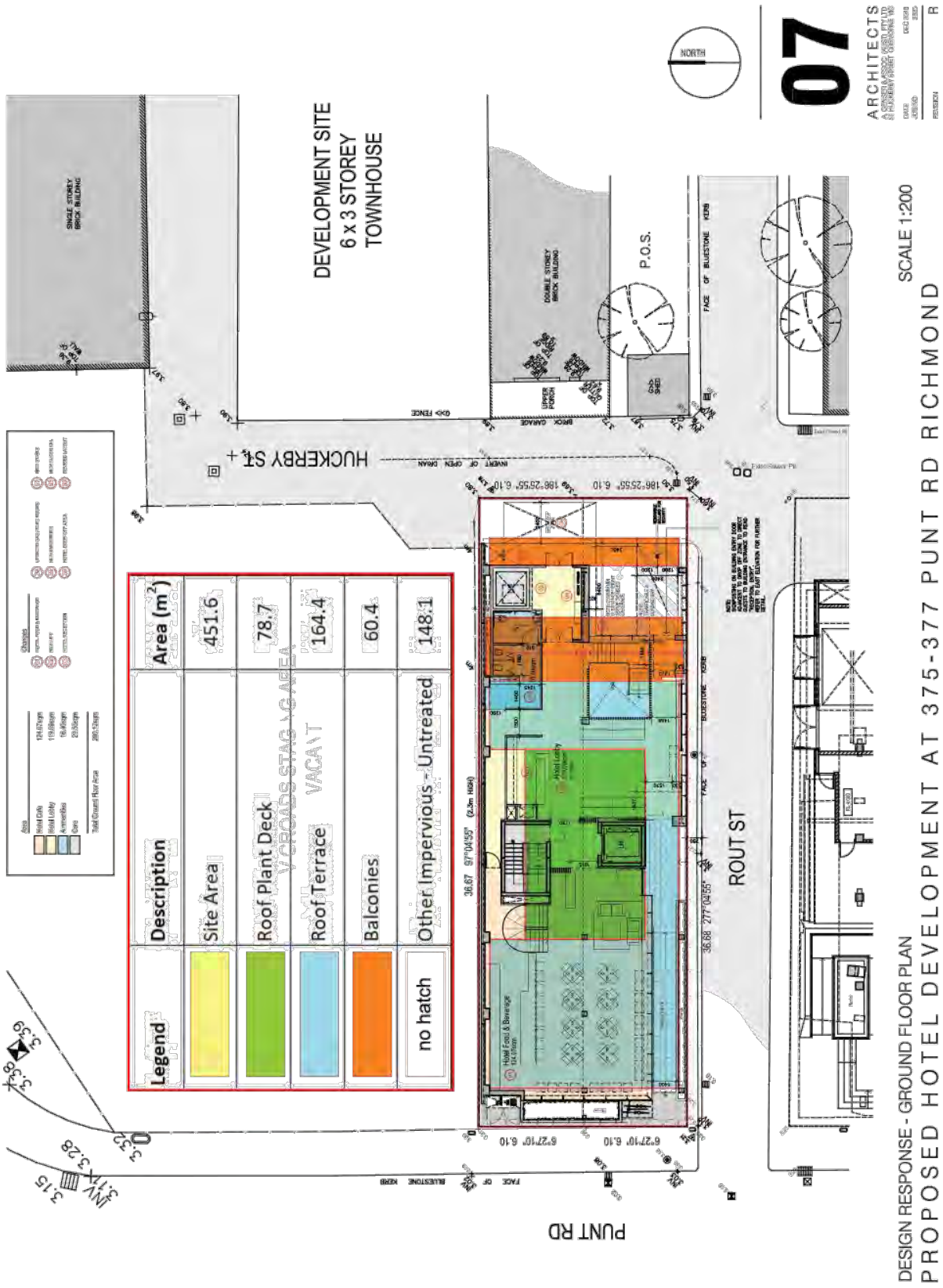
This stormwater management report has hence demonstrated compliance to the minimum requirement outlined within the City of Yarra's Planning Scheme for the purpose of town planning submission.

APPENDIX 1 – SITE LAYOUT PLAN

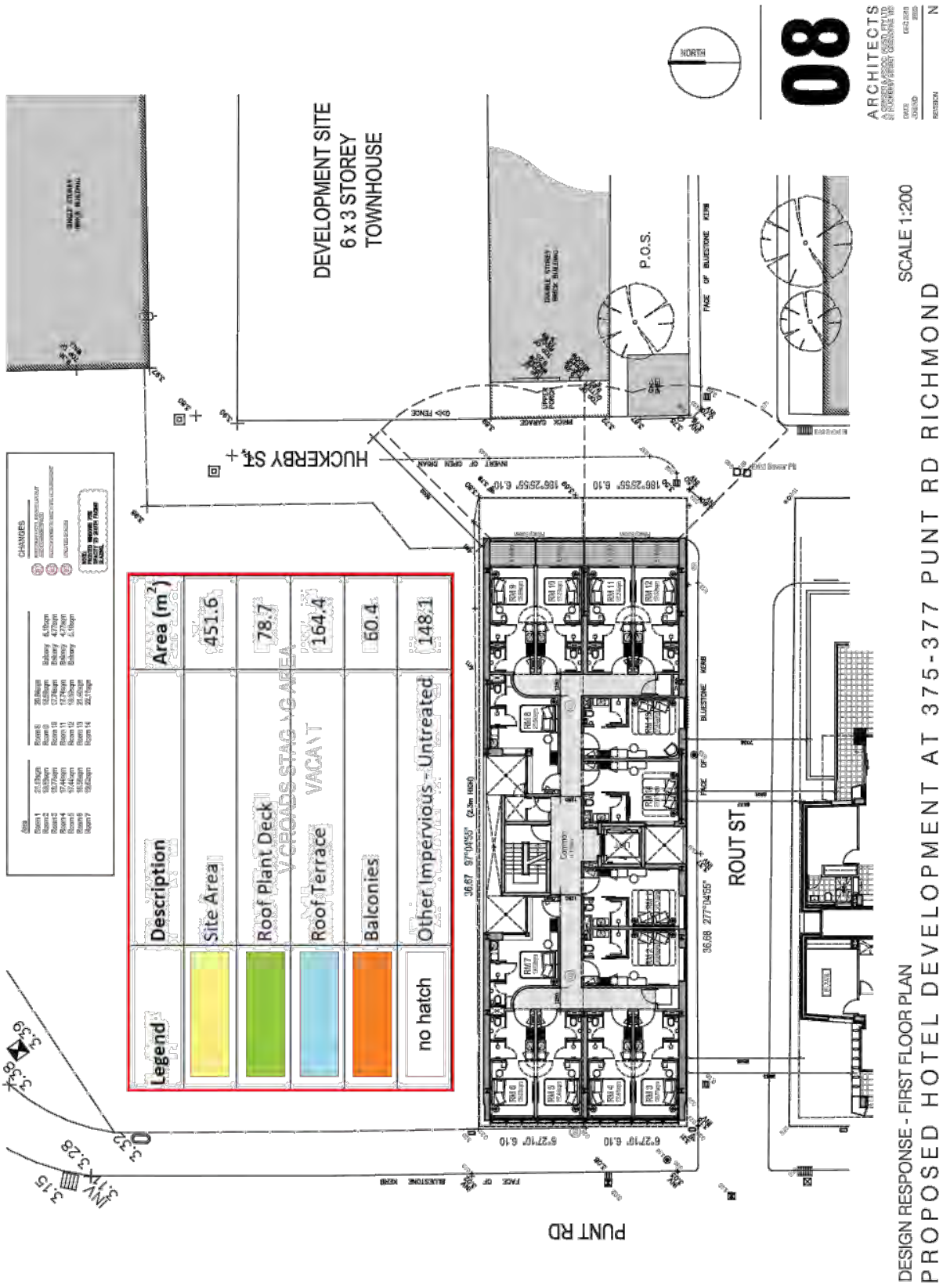
Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



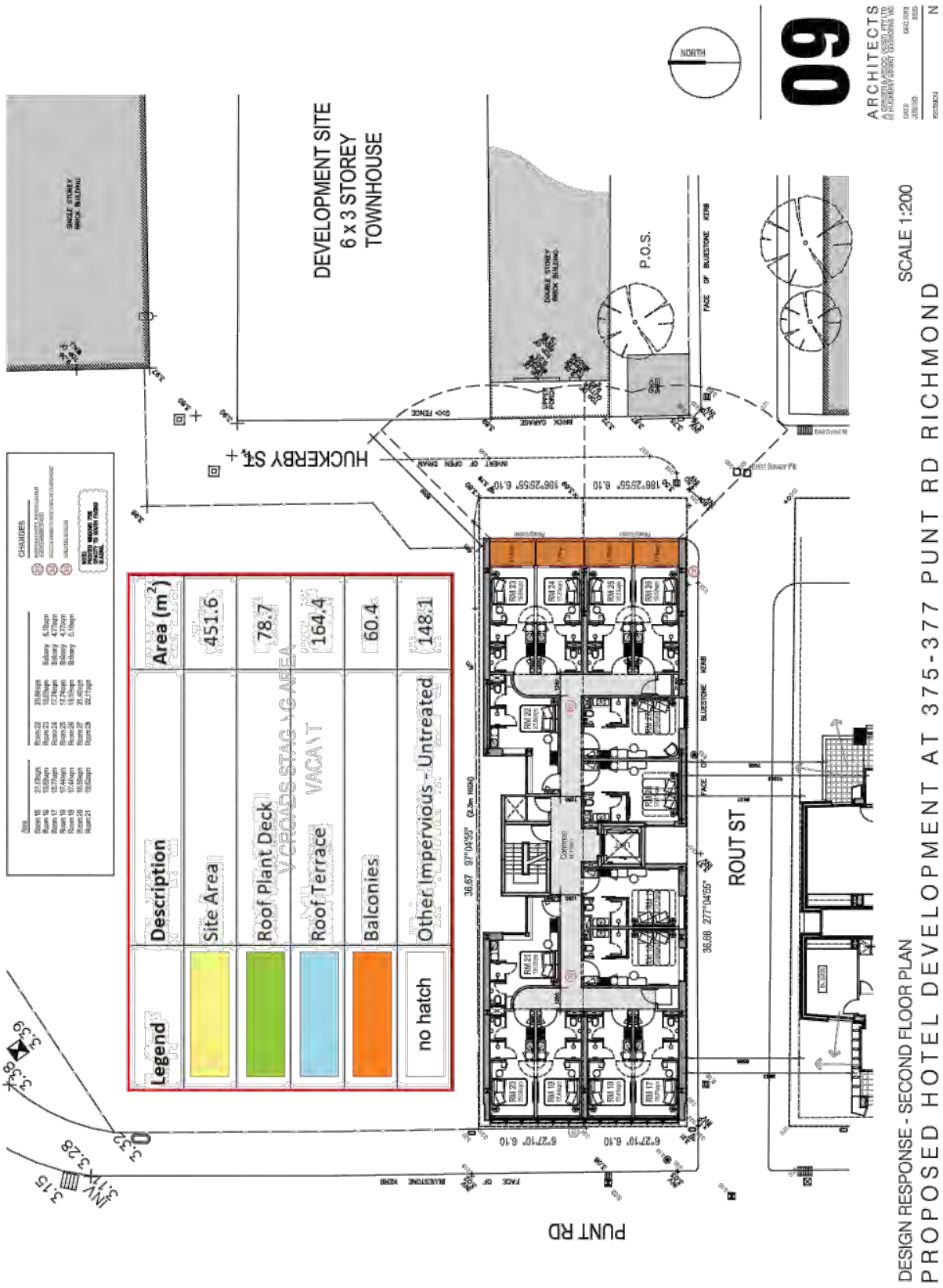
Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



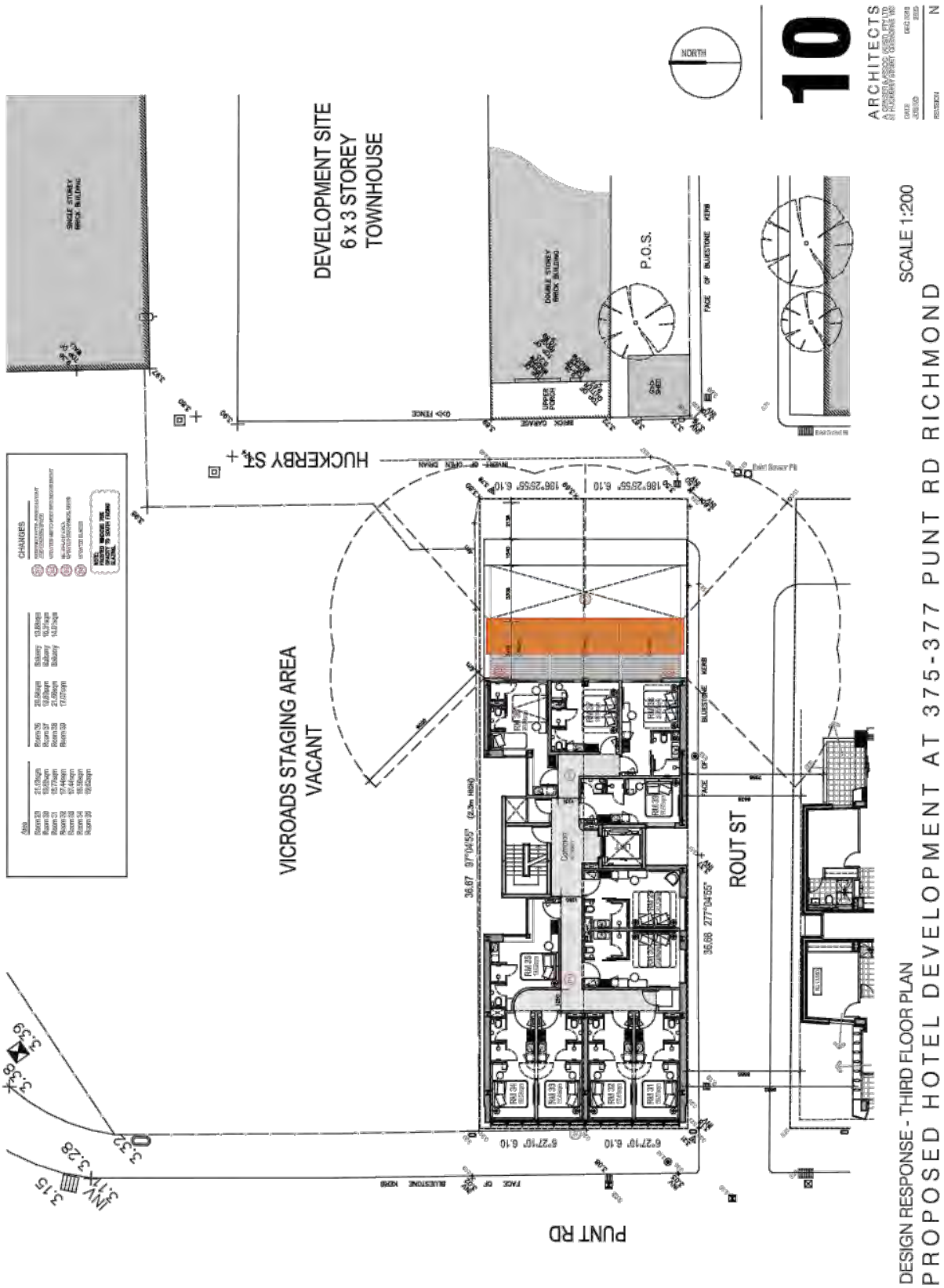
Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



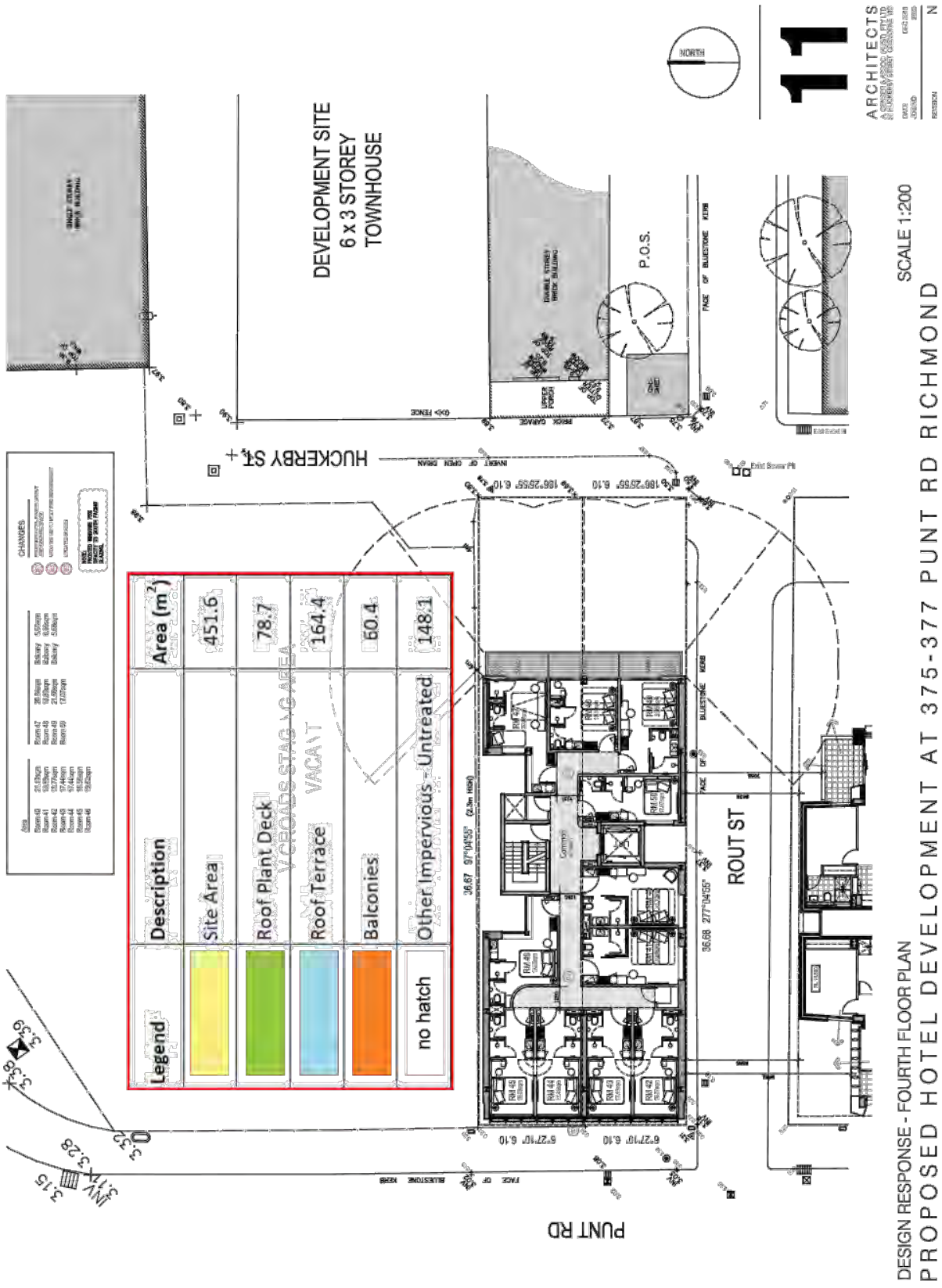
Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



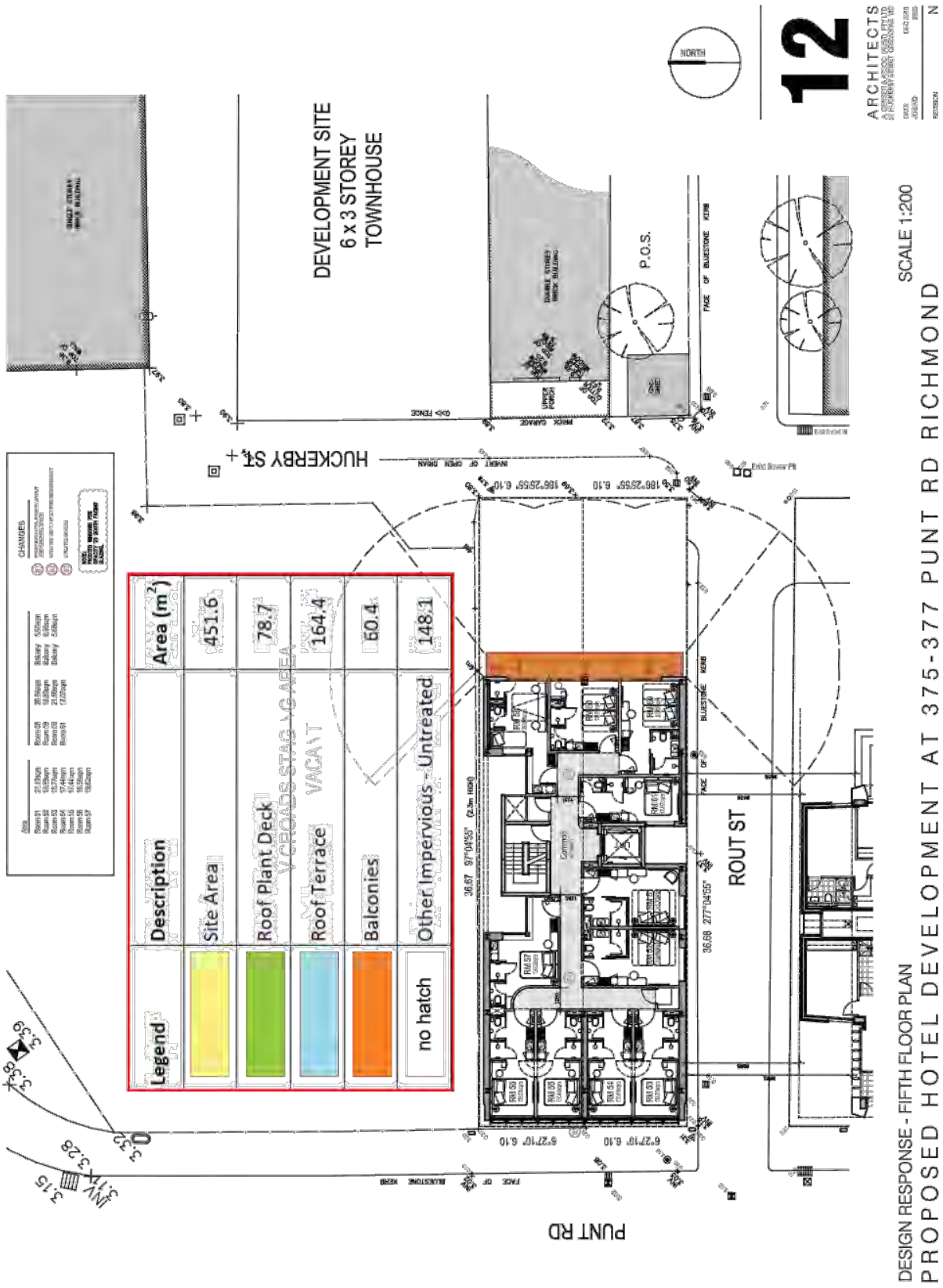
Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



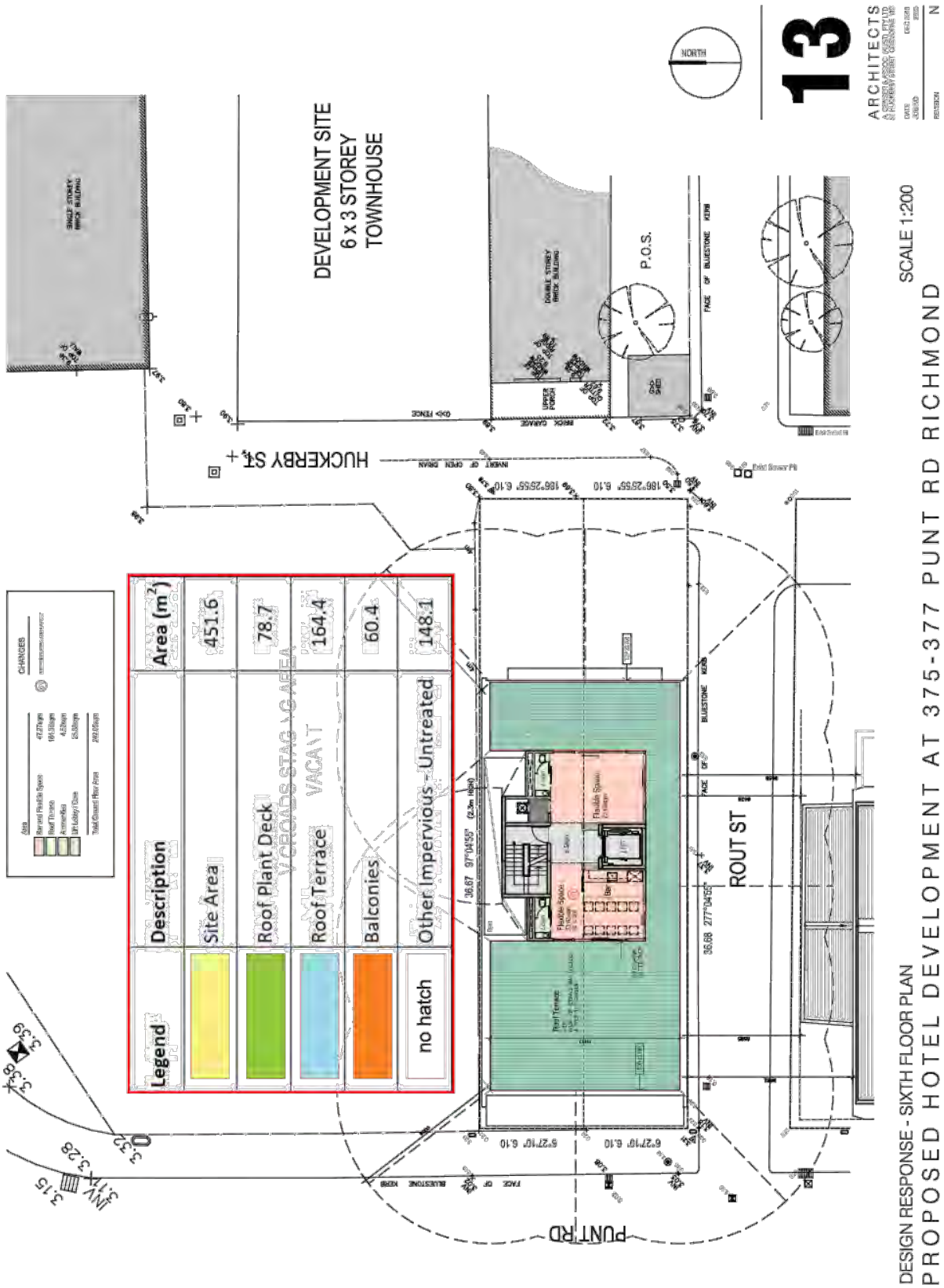
Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



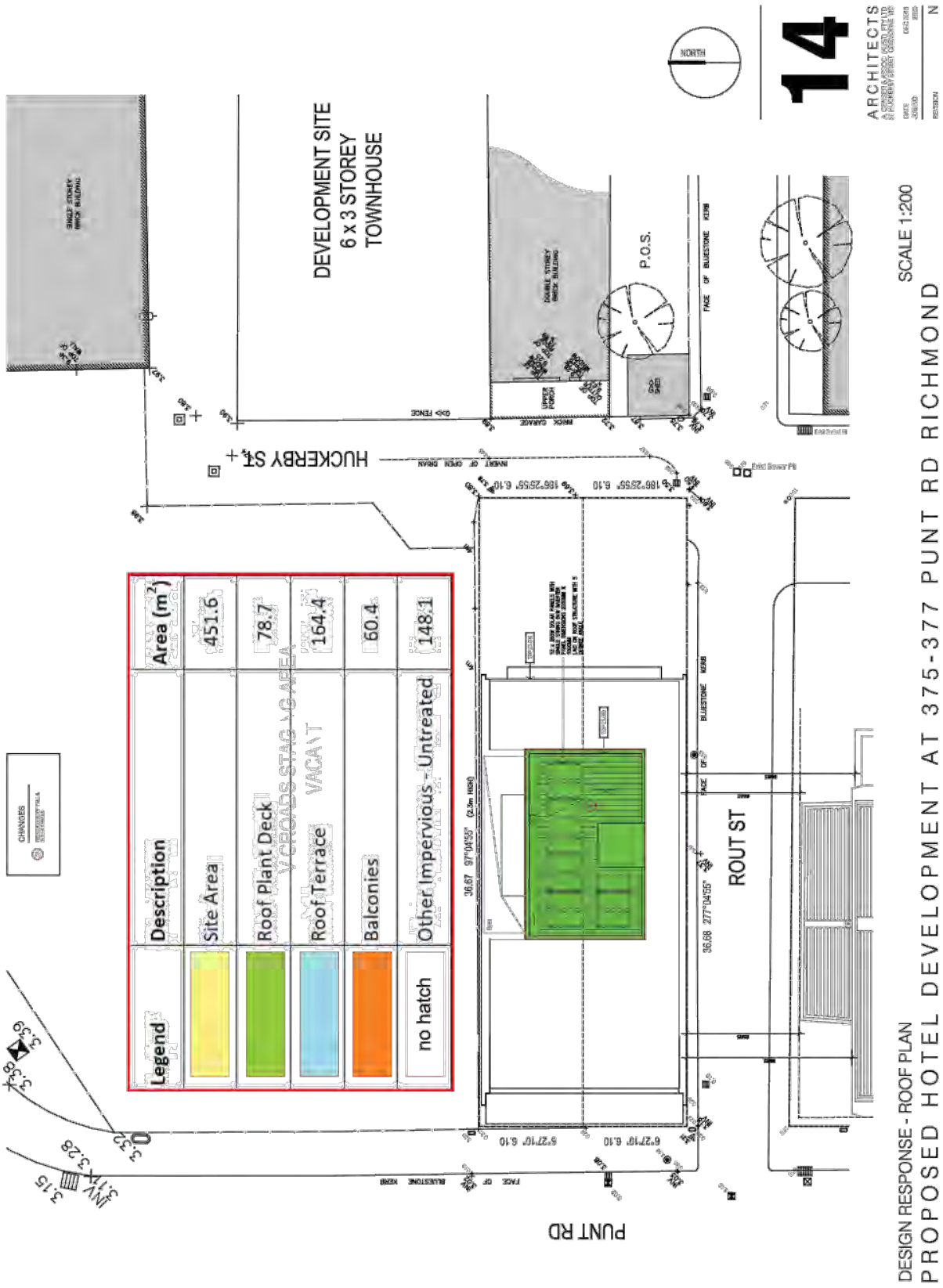
Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



Attachment 13 - PLN19/0751 - 375 & 377 Punt Road - Revised SMP



Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

ESD in the Planning Permit Application Process

Yarra City Council's planning permit application process includes Environmentally Sustainable Development (ESD) considerations. This is now supported by the ESD Local Policy Clause 22.17 of the Yarra Planning Scheme, entitled *Environmentally Sustainable Development.*

The Clause 22.17 requires all eligible applications to demonstrate best practice in ESD, supported by the Built Environment Sustainability Scorecard (BESS) web-based application tool, which is based on the Sustainable Design Assessment in the Planning Process (SDAPP) program.

As detailed in Clause 22.17, this application is a 'large' planning application as it meets the category Non-*residential 1. 1,000m^2 or greater*.

What is a Sustainable Management Plan (SMP)?
An SMP is a detailed sustainability assessment of a proposed design at the planning stage. An SMP demonstrates best practice in the 10 Key Sustainable Building Categories and;

- Provides a detailed assessment of the development. It may use relevant tools such as BESS and STORM or an alternative assessment approach to the satisfaction of the responsible authority; and
- Identifies achievable environmental performance outcomes having regard to the objectives of Clause 22.17 (as appropriate); and
- Demonstrates that the building has the design potential to achieve the relevant environmental performance outcomes, having regard to the site's opportunities and constraints; and
- Documents the means by which the performance outcomes can be achieved.

An SMP identifies beneficial, easy to implement, best practice initiatives. The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. Hence, greater rigour in investigation is justified. It may be necessary to engage a sustainability consultant to prepare an SMP.

Assessment Process:

The applicant's town planning drawings provide the basis for Council's ESD assessment. Through the provided drawings and the SMP, Council requires the applicant to demonstrate best practice.

Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

Table of Contents

Assessment Summary: 3
1. Indoor Environment Quality (IEQ) 5
2. Energy Efficiency 6
3. Water Efficiency 8
4. Stormwater Management 9
5. Building Materials 10
6. Transport 11
7. Waste Management 12
8. Urban Ecology 13
9. Innovation 14
10. Construction and Building Management 15
Applicant Response Guidelines 16

Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

Sustainable Management Plan (SMP)

Referral Response by Yarra City Council

Assessment Summary:

Responsible Planner:	Laura Condon
ESD Advisor:	Gavin Ashley
Date:	101.02.2020
Subject Site:	375 and 377 Punt Rd, Richmond. VIC
Site Area:	Approx. 452m^2
Project Description:	7 storey building comprising GF café and lobby, 6 levels with 61 hotel suites and 2 basement levels for kitchen, bike parking and storage. Amendment from 10 dwellings to 61 room residential hotel.
Pre-application meeting(s):	Unknown.
Documents Reviewed:	Architectural TP set: A Genser & Assoc. SMP: Form Engineers. Rev 0, 12/12/2019

The standard of the ESD does not meet Council's Environmental Sustainable Design (ESD) standards. Should a permit be issued, the following ESD commitments (1) and deficiencies (2) should be conditioned as part of a planning permit to ensure Council's ESD standards are fully met.

Furthermore, it is recommended that all ESD commitments (1), deficiencies (2) and the outstanding information (3) are addressed in an updated SMP report and are clearly shown on Condition 1 drawings. ESD improvement opportunities (4) have been summarised as a recommendation to the applicant.

(1) Applicant ESD Commitments:

- Operable windows to each individual hotel room
- All internal sealants and paints, adhesives, and carpets will be low VOC, and all engineered timber products will be E0 or better.
- Achieving and exceeds NCC minimum energy consumption performance standard. JV3 report shows improvement of 9% above NCC minimum
- 46% reduction in GHG calculated in BESS
- Highly energy efficient mechanical gas heating /packaged AC cooling system.
- Efficient HVAC (at least 10% better than NCC minimum)
- HVAC fans to have minimum energy efficiency in line with NCC 2016
- VSD for fan motors and programmable timers to manage HVAC operation to minimise
- energy demand and costs
- LED fixtures throughout and 20% lower lighting power density than NCC requirements.
- Programmable timers, occupancy sensor controls to common area and external lighting systems SMP: roof mounted solar PV array (up to 14kW)
- SMP: roof mounted solar PV array (up to 14kW)
- Industry best practice standard WELS rating specified for all water fixtures:
- • Taps: 6 star
- • Toilets: 5 star
- • Showers: 3 star
- • Dishwashers 5 star
- • Urinals: 6 star
- 7,200 L rainwater storage tank to serve toilet flushing, landscape irrigation and bin wash down
- A STORM report with a 109% STORM score has been submitted that demonstrates best practice and relies on 303m2 of roof connected to a 7,200 litre rainwater tank connected to toilet flushing.
- 12 bike parking spaces provided
- Building user guides containing ESD design features, intents and objectives to be developed and made available to facility management and occupants

Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

(2) Application ESD Deficiencies:
- The building should target a 10% improvement without reliance on Solar PV.
- A commitment to FCS or PEFC timber is required.
- Organic waste collection is required to be included in the development and allocation made in the waste room.
- Recommend that an Environmental Management Plan be developed by the building contractor to monitor and control activities undertaken during construction.

(3) Outstanding Information:
- Plans need to confirm operability of windows on west and east elevation (as noted in SMP)
- The JV3 result relies on 14kWp PV. Confirmation is required on the following statement for accuracy. "As our development is an existing (office) building with a heritage overlay, we are restricted in the level of building fabric improvement we can install."
- More information is required on the HVAC approach including whether the system is centralised or not.
- We expect fan efficiency to exceed NCC minima. The architecture should be updated to reflect the 14kW commitment – currently shows 12 x 280W = 3.36kWp and 5kW inverter.
- The architecture should be updated to reflect the 14kW commitment – currently shows 12 x 280W = 3.36kWp and 5kW inverter.
- More information is required on how recycled / reused materials have been included in the design.
- More information is required on how the embodied energy of the building has been reduced.
- Provide a Green Travel Plan with performance targets and monitoring and reporting components included.
- Nominate a target for construction waste of at least 80%.
- Include Green Waste in WMP
- Confirmation is required for the intention to include a roof top garden.
- Provide a statement documenting how the choice of materials assists in mitigating the urban heat island effect.

(4) ESD Improvement Opportunities
- Consider providing a key switch to turn off lights and HVAC on exit.
- Consider a small pallet of materials and construction techniques that can assist in disassembly.
- Consider pipes, cabling, flooring to do not contain PVC or meeting best practice guidelines for PVC.
- Provide information to guests regarding nearby car share schemes.
- Consider a green roof or wall to improve the ecological value of this site.
- Consider the Head contractor to be accredited to ISO 14001.

Further Recommendations:
The applicant is encouraged to consider the inclusion of ESD recommendations, detailed in this referral report. Further guidance on how to meet individual planning conditions has been provided in reference to the individual categories. The applicant is also encouraged to seek further advice or clarification from Council on the individual project recommendations.

Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

1. Indoor Environment Quality (IEQ)

Objectives:

- to achieve a healthy indoor environment quality for the wellbeing of building occupants.
- to provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices.

Issues	Applicant's Design Responses	Council Comments	CAR*
Natural Ventilation and Night Purging	Operable windows to each individual hotel room	Plans need to confirm operability of windows on west and east elevation (as noted in SMP)	3
Daylight & Solar Access	VLT >= 60% to ensure generous level of daylight amenity	Satisfactory	1
External Views	All occupied areas (hotel) have been afforded views to the external	Satisfactory	1
Hazardous Materials and VOC	All internal sealants and paints, adhesives, and carpets will be low VOC, and all engineered timber products will be E0 or better.	Satisfactory	1
Thermal Comfort	Double glazing and effective shading provided.	Satisfactory	1

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 1. Indoor Environment Quality
Good Environmental Choice Australia Standards www.geca.org.au
Australian Green Procurement www.greenprocurement.org
Residential Flat Design Code www.planning.nsw.gov.au
Your Home www.yourhome.gov.au

2. Energy Efficiency

Objectives:

- to ensure the efficient use of energy
- to reduce total operating greenhouse emissions
- to reduce energy peak demand
- to minimize associated energy costs.

Issues	Applicant's Design Responses	Council Comments	CAR*
NCC Energy Efficiency Requirements Exceeded	Achieving and exceeds NCC minimum energy consumption performance standard. JV3 report shows improvement of 9% above NCC minimum.	The JV3 result relies on 14kWp PV. Confirmation is required on the following statement for accuracy. "As our development is an existing (office) building with a heritage overlay, we are restricted in the level of building fabric improvement we can install." The building should target a 10% improvement without reliance on Solar PV.	3
Thermal Performance	Window systems: U-value 3.1 W/m² K SHGC 0.57	Clarification required as per above.	3
Greenhouse Gas Emissions	46% reduction in GHG calculated in BESS	Clarification required as per above.	3
Hot Water System	Domestic hot water provided by gas. [BESS]	OK	1
Peak Energy Demand	N/A		
Effective Shading	Passive shading features to control solar gain including screens to North, fins to West, balconies to East	Satisfactory	1
Efficient HVAC system	Highly energy efficient mechanical gas heating /packaged AC cooling system. Efficient HVAC (at least 10% better than NCC minimum) HVAC fans to have minimum energy efficiency in line with NCC 2016 VSD for fan motors and programmable timers to manage HVAC operation to minimise energy demand and costs	More information is required on the HVAC approach including whether the system is centralised or not. We expect fan efficiency to exceed NCC minima.	3
Car Park Ventilation	No car parking	N/A	1
Efficient Lighting	LED fixtures throughout and 20% lower lighting power density than NCC requirements. Programmable timers, occupancy sensor controls to common area and external lighting systems	Satisfactory.	1
Electricity Generation	SMP: roof mounted solar PV array (up to 14kW)	The architecture should be updated to reflect the 14kW commitment – currently shows	3

Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

		12 x 280W = 3.36kWp and 5kW inverter.	
Other	-	Consider providing a key switch to turn off lights and HVAC on exit.	4

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 2. Energy Efficiency
House Energy Rating www.makeyourhomegreen.vic.gov.au
Building Code Australia www.abcb.gov.au
Window Efficiency Rating Scheme (WERS) www.wers.net
Minimum Energy Performance Standards (MEPS) www.energyrating.gov.au
Energy Efficiency www.resourcesmart.vic.gov.au

3. Water Efficiency

Objectives:

- to ensure the efficient use of water
- to reduce total operating potable water use
- to encourage the collection and reuse of rainwater and stormwater
- to encourage the appropriate use of alternative water sources (e.g. grey water)
- to minimise associated water costs.

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising Amenity Water Demand	Industry best practice standard WELS rating specified for all water fixtures: • Taps: 6 star • Toilets: 5 star • Showers: 3 star • Dishwashers 5 star • Urinals: 6 star	Good	1
Water for Toilet Flushing	7,200 L rainwater storage tank to serve toilet flushing, landscape irrigation and bin wash down	Satisfactory	1
Water Meter	Water sub-metering for each tenancy and common area	Satisfactory.	1
Landscape Irrigation	Water efficient landscaping	No comments.	-
Other	Air-based heat rejection system (does not consume water)	Good	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 3. Water Efficiency
Water Efficient Labelling Scheme (WELS) www.waterrating.gov.au
Water Services Association of Australia www.wsaa.asn.au
Water Tank Requirement www.makeyourhomegreen.vic.gov.au
Melbourne Water STORM calculator www.storm.melbournewater.com.au
Sustainable Landscaping www.ourwater.vic.gov.au

4. Stormwater Management

Objectives:

- to reduce the impact of stormwater runoff
- to improve the water quality of stormwater runoff
- to achieve best practice stormwater quality outcomes
- to incorporate Water Sensitive Urban Design principles.

Issues	Applicant's Design Responses	Council Comments	CAR*
STORM Rating	A STORM report with a 109% STORM score has been submitted that demonstrates best practice and relies on 303m² of roof connected to a 7,200 litre rainwater tank connected to toilet flushing.	Satisfactory	1
Discharge to Sewer	-	-	-
Stormwater Diversion	-	-	-
Stormwater Detention	-	-	-
Stormwater Treatment	-	-	-
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 4. Stormwater Management
Melbourne Water STORM calculator www.storm.melbournewater.com.au
Water Sensitive Urban Design Principles www.melbournewater.com.au
Environmental Protection Authority Victoria www.epa.vic.gov.au
Water Services Association of Australia www.wsaa.asn.au
Sustainable Landscaping www.ourwater.vic.gov.au

5. Building Materials

Objectives:

- to minimise the environmental impact of materials used by encouraging the use of materials with a favourable lifecycle assessment.

Issues	Applicant's Design Responses	Council Comments	CAR*
Reuse of Recycled Materials	No specific information provided.	More information is required on how recycled / reused materials have been included in the design.	3
Embodied Energy of Concrete and Steel	No specific information provided.	More information is required on how the embodied energy of the building has been reduced.	3
Sustainable Timber	No information has been provided.	A commitment to FCS or PEFC timber is required.	2
Design for Disassembly	No information has been provided.	Consider a small pallet of materials and construction techniques that can assist in disassembly.	4
PVC	No information has been provided.	Consider pipes, cabling, flooring to do not contain PVC or meeting best practice guidelines for PVC.	4

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 5. Building Materials
Building Materials, Technical Manuals www.yourhome.gov.au
Embodied Energy Technical Manual www.yourhome.gov.au
Good Environmental Choice Australia Standards www.geca.org.au
Forest Stewardship Council Certification Scheme www.fsc.org
Australian Green Procurement www.greenprocurement.org

6. Transport

Objectives:

- to minimise car dependency
- to ensure that the built environment is designed to promote the use of public transport, walking and cycling.

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising the Provision of Car Parks	No car parking provided	Satisfactory	1
Bike Parking Spaces	12 bike parking spaces provided	Satisfactory	1
End of Trip Facilities	End of trip facilities have been provided.	Satisfactory	1
Car Share Facilities	No information has been provided.	Provide information to guests regarding nearby car share schemes.	4
Electric vehicle charging	N/A		
Green Travel Plan	A Green Travel Plan shall be provided for the proposed building once further developed and will be submitted separately to support the planning application	Provide a Green Travel Plan with performance targets and monitoring and reporting components included.	3

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 6. Transport
Off-setting Car Emissions Options www.greenfleet.com.au
Sustainable Transport www.transport.vic.gov.au/doi/internet/icy.nsf
Car share options www.yarracity.vic.gov.au/Parking-roads-and-transport/Transport-Services/Carsharing/
Bicycle Victoria www.bv.com.au

7. Waste Management

Objectives:

- to ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development
- to ensure long term reusability of building materials.
- to meet Councils' requirement that all multi-unit developments must provide a Waste Management Plan in accordance with the *Guide to Best Practice for Waste Management in Multi-unit Developments 2010*, published by Sustainability Victoria.

Issues	Applicant's Design Responses	Council Comments	CAR*
Construction Waste Management		Nominate a target for construction waste of at least 80%.	3
Operational Waste Management	A site-specific Waste Management Plan shall be made available to future owners/tenants	Organic waste collection is required to be included in the development and allocation made in the waste room.	2
Storage Spaces for Recycling and Green Waste	Recycling facilities shown on Lower Basement plan. Green waste has not been mentioned.	Include Green Waste in WMP	3
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 7. Waste Management
Construction and Waste Management www.sustainability.vic.gov.au
Preparing a WMP www.epa.vic.gov.au
Waste and Recycling www.resourcesmart.vic.gov.au
Better Practice Guide for Waste Management in Multi-Unit Dwellings (2002)
www.environment.nsw.gov.au
Waste reduction in office buildings (2002) www.environment.nsw.gov.au

8. Urban Ecology

Objectives:

- to protect and enhance biodiversity
- to provide sustainable landscaping
- to protect and manage all remnant indigenous plant communities
- to encourage the planting of indigenous vegetation.

Issues	Applicant's Design Responses	Council Comments	CAR*
On Site Topsoil Retention	There is no productive topsoil on this site.	-	N/A
Maintaining / Enhancing Ecological Value	Arch: "ROOF TOP TERRACE MAY INCLUDE A ROOF GARDEN" Landscape design shall consist of a selection of native and draught-tolerant species.	Confirmation is required for the intention to include a roof top garden.	3
Heat Island Effect	No information has been provided.	Provide a statement documenting how the choice of materials assists in mitigating the urban heat island effect.	3
Other		-	
Green wall, roofs, facades	No information has been provided.	Consider a green roof or wall to improve the ecological value of this site.	4

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 8. Urban Ecology
Department of Sustainability and Environment www.dse.vic.gov.au
Australian Research Centre for Urban Ecology www.arcue.botany.unimelb.edu.au
Greening Australia www.greeningaustralia.org.au
Green Roof Technical Manual www.yourhome.gov.au

9. Innovation

Objective:

- to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

Issues	Applicant's Design Responses	Council Comments	CAR*
Significant Enhancement to the Environmental Performance	-		-
Innovative Social Improvements	-	-	-
New Technology	-	-	-
New Design Approach	-	-	-
Others		-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 9. Innovation
Green Building Council Australia www.gbca.org.au
Victorian Eco Innovation lab www.ecoinnovationlab.com
Business Victoria www.business.vic.gov.au
Environment Design Guide www.environmentdesignguide.com.au

10. Construction and Building Management

Objective:

- to encourage a holistic and integrated design and construction process and ongoing high performance

Issues	Applicant's Design Responses	Council Comments	CAR*
Building Tuning	Commitment to 12-month (post-handover) building tuning period and recommissioning at completion of tuning activities	Satisfactory	1
Building Users Guide	Building user guides containing ESD design features, intents and objectives to be developed and made available to facility management and occupants	Satisfactory	1
Contractor has Valid ISO14001 Accreditation	No information has been provided.	Consider the Head contractor to be accredited to ISO 14001.	4
Construction Management Plan	No information has been provided.	Recommend that an Environmental Management Plan be developed by the building contractor to monitor and control activities undertaken during construction.	2
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 10. Construction and Building Management
ASHRAE and CIBSE Commissioning handbooks
International Organization for standardization – ISO14001 – Environmental Management Systems
Keeping Our Stormwater Clean – A Builder's Guide www.melbournewater.com.au

Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

Applicant Response Guidelines

Project Information:

Applicants should state the property address and the proposed development's use and extent. They should describe neighbouring buildings that impact on or may be impacted by the development. It is required to outline relevant areas, such as site permeability, water capture areas and gross floor area of different building uses. Applicants should describe the development's sustainable design approach and summarise the project's key ESD objectives.

Environmental Categories:

Each criterion is one of the 10 Key Sustainable Building Categories. The applicant is required to address each criterion and demonstrate how the design meets its objectives.

Objectives:

Within this section the general intent, the aims and the purposes of the category are explained.

Issues:

This section comprises a list of topics that might be relevant within the environmental category. As each application responds to different opportunities and constraints, it is not required to address all issues. The list is non-exhaustive and topics can be added to tailor to specific application needs.

Assessment Method Description:

Where applicable, the Applicant needs to explain what standards have been used to assess the applicable issues.

Benchmarks Description:

The applicant is required to briefly explain the benchmark applied as outlined within the chosen standard. A benchmark description is required for each environmental issue that has been identified as relevant.

How does the proposal comply with the benchmarks?

The applicant should show how the proposed design meets the benchmarks of the chosen standard through making references to the design brief, drawings, specifications, consultant reports or other evidence that proves compliance with the chosen benchmark.

ESD Matters on Architectural Drawings:

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site's permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.

Attachment 14 - PLN19/0751 - 375 & 377 Punt Road - ESD comments

Supplementary ESD Comments:

In response to the above comments the applicant provided a revised Sustainable Management Plan by Form dated 27/04/2020 Rev 1. Council's ESD officers revised this document and provided the following comments on 11 May 2020:

My comments are as follows.

The updated SMP provided by the client is generally satisfactory and confirms that the design of the building (even though it is already in construction) is of equal or greater environmental performance than the previously endorsed design. Two items still need to be addressed:

- *The operability of the western and eastern facing windows must be confirmed - currently it is clear that the north facing windows are operable but there is inconsistency in the western and eastern facing windows*
- *A landscape plan for the roof top terrace must be provided - confirming significant greenery to provide adequate shade to guests using the rooftop terrace and reducing urban heat island effect*

Regards,
Gavin Ashley

Traffix Group

Our Reference: G27545L-02A

3 March, 2020

Genser
T2, 381-383 Punt Road
CREMORNE VIC 3121

Attention: Mr Ben Genser

375-377 Punt Road, Cremorne – Proposed Residential Hotel Development
Traffic Engineering Assessment

Introduction

Further to your instructions, please find following our review of Memorandum issued by City of Yarra (dated 13 February, 2020) in regards to traffic engineering matters associated with the proposed residential hotel development at 375-377 Punt Road, Cremorne.

The following report provides a review and response to the relevant matters raised by the City of Yarra's Council Civil Engineering unit.

Background

The primary concerns raised by Council Engineers are as follows:

- vehicle access associated with the disabled car space,
- provision of a loading bay and operation of loading activities, and
- minor design adjustments associated with the drawing set.

We also understand that Council have also made additional concerns in regard to:

- Concerns with the width of the drop-off zone associated with car doors opening into Huckerby Street and hitting hotel doors and the gas meters, and
- Van doors not being able to open due to the clearance to the wall adjacent to the 'loading bay'.

A response to the various maters is provided as follows.

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Melbourne Victoria 3000
T: 03 9822 2888
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Traffix Group Pty Ltd
ABN: 32 100 481 570
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375-377 Punt Road, Cremorne

Traffix Group

Loading and Drop-Off Zone Operation

The rear hardstand areas are proposed to accommodate demands associated with two activities, guest drop-off/pick-up and loading/waste collection. There is effectively space for two vehicles to be accommodated at any one time (DDA space and Drop-off Zone). A figure identifying these areas is provided below.

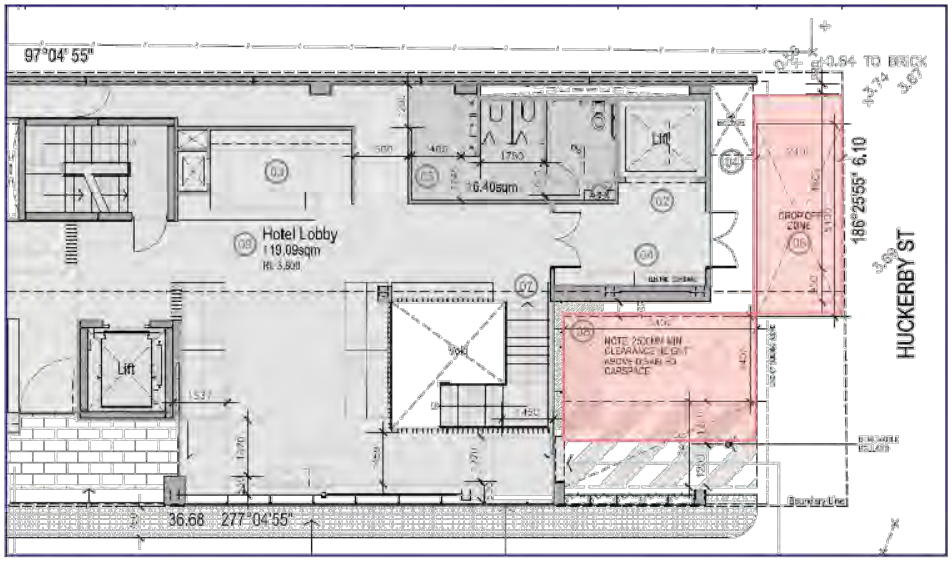


Figure 1: On-site Parking Opportunities

In regard to the above:

- We recommended that no on-site parking be specifically allocated to staff, rather the DDA car space shall be available for pick-up/drop-off activity and loading as required. This differs from our previous assessment (G27545L-01D) which suggested that this space be made available for staff.

  The non-provision of car parking for staff is acceptable in this location based on the site's access to alternate transport modes. The preference is to ensure that the pick-up/drop-off are accommodated in convenient location as they have less opportunity to shift travel modes.

- There is no specific requirement for the accessible DDA car space to be signed or line marked as only available for disabled persons (as per Clause D3.5(d) of NCC 2019 Building Code of Australia - Volume One). Accordingly, this space would be available for all users rather than just disabled persons only.

- Empirical assessment of the pick-up/drop-off demands based on surveys of other hotels suggests that a maximum demand for 1 car at any time would occur in association with the guest pick-up and drop-off activity. This demand would have the option of being accommodated within DDA car space or alternately the dedicated drop-off zone.

- Loading demands associated with the development would be low (1 vehicle at any time) with a undertaken via small delivery vehicles and can be accommodated within 2.4m drop-off area or DDA car space if required.

  We are satisfied that small delivery vehicles will be able to exit towards the north if required. Alternately, the shared area which forms part of the DDA car space could be utilised as a turn around bay to enable vehicles to exit towards Punt Road.

- Waste collection will be undertaken on-street along Huckerby Street or Rout Street. However, if required this practice could occur on-site within the DDA space or the Drop-off Zone (similar to the loading).

  If accessing the on-site areas the waste collection vehicle would be the 6.4m long mini loader vehicle. This vehicle has a maximum operating height of 2.5m which is accommodated (as per the DDA car space).

Overall, we are satisfied that the pick-up/drop-off activities and loading can be accommodated within the two areas available at the rear of the site.

Drop-off Zone

Regarding the operation of the drop-off zone Council has raised concerns regarding the width of the drop-off zone associated with car doors opening into Huckerby Street and hitting hotel doors and the gas meters.

In regards to the car doors opening into Huckerby Street, this is acknowledged however we are of the opinion that it is acceptable, noting:

- a compliant clear envelope for opening of car doors is available along the western side of the drop-off space with no conflict with the gas enclosure or the doors into the lobby,
- traffic movements along Huckerby Street are low and will occur at low speeds given the constrained road environment,
- the drop off space is setback from the critical manoeuvring zone at the 90-degree bend and as such car negotiating the bend at low speeds will be in position to see any parked cars and alighting passengers or delivery driver,
- the clear width of Huckerby street adjacent to the car space will be no less than 4.79m which exceeds the minimum access aisle width for parallel car parking spaces (3.6m wide space based on Clause 52.06), and
- the clear width of Huckerby Street is adequate to enable safe passing of vehicles by any passengers alighting from parked car. Effectively the clear width would provide for 3.3m carriageway for cars (including 300mm clearance to opposite properties) and 1.49m zone for alighting passengers.

Overall, we are satisfied that the drop-off zone will function with an appropriate level of safety.

Disabled Car Space & Loading Bay

The 'accessible' DDA car space does not need to include any signage or line marking that specifically designates its usage as DDA only rather this would function as a standard car

space that includes dimensions suitable for disabled persons in the event that it is required. This space may be used for pick-up/drop-off activity or alternately loading/deliveries as required.

Furthermore, in regards to 'shared area', AS290,6-2009 define the shared area as:

> *An area adjacent to a dedicated space provided for access or egress to or from a parked vehicle and which may be shared with any other purpose that does not involve other than transitory obstruction of the area, e.g. a walkway, a vehicular aisle, dual use with another adjacent dedicated space.*

The use of the 'shared area' as a loading bay was never the specific intention of the proposed use. Rather the use of this area as demonstrated within our swept paths, was to be a turning around opportunity for loading/waste collection vehicles in the event that they were required to exit towards the west onto Punt Road. Use of this area as a 'turn zone' accords with the description as a transitory obstruction.

The loading and waste collection arrangements were detailed within the Traffic Report as follows:

Traffic Report (27545L-01D, dated 10 December 2019)

> *We are satisfied that the loading demands would be undertaken via small delivery vehicles and can be accommodated within 2.4m setback/refuge area or disabled car space if required noting that the peak demand for this area is expected to be 1 car space only. We are satisfied this is an acceptable arrangement for the development.*

As loading/unloading is not specifically intended to occur form the 'shared area' there should be no impacts on the opening of doors from any van accessing the site.

Response to Design Comments Within Council Memorandum

We have provided a response to each design items to be addressed as listed by Council. The responses are detailed in Table 1 below.

Table 1: Council Design Items to be Addressed

Council Design Item		Response
Headroom Clearance	The headroom clearance at the entrance to the car spaces is to be dimensioned on the drawings.	Noted. The headroom clearance for the disabled car space and the drop-off zone is dimensioned as 2.6m in the South Elevation Drawing (Drawing No. 27, Rev. N). A notation is included in the plans as 2.5m headroom clearance minimum being achieved (Drawing No. 19, Rev R).
Accessible Car Space	Should an accessible car space be provided, an adjacent shared area is to be installed to Satisfy AS/NZs 2890.6.2009	Noted. A car space is provided with a clear shared area dimensioned 2.4m wide and 5.4m long in accordance with AS2890.6-2009. It is noted that as per NCC BCA requirements the DDA car

Council Design Item		Response
		space does not require any formal signage that restricts its access to disabled persons only.
Drop-off Zone	The length of the drop-off zone is to be dimensioned on the drawings.	Noted. Plans have been amended to dimension the drop-off zone length (clear dimensions of 2.4m wide and 5.4m long).
Clearances to Walls	The clearance to the wall of the car space nearest to Rout Street is to be dimensioned on the drawings.	Noted. Given the car space nearest to Rout Street is the disabled space, a clearance of 407mm has been dimensioned north of the car space.
Vehicle Turning Movements	Swept path diagrams for a B99 design vehicle demonstrating satisfactory access into and out of the car spaces is to be provided.	Noted. Swept paths demonstrating the access of a B99 design vehicle has been attached at Appendix B.
Loading Bay	The provision of the loading bay is subject to the removal of the accessible car space.	We understand that there may have been a misunderstanding associated with the 'shared area' being considered as a loading bay. AS2890.6-2009 defines the shared area as: *An area adjacent to a dedicated space provided for access or egress to or from a parked vehicle and which may be shared with any other purpose that does not involve other than transitory obstruction of the area, e.g. a walkway, a vehicular aisle, dual use with another adjacent dedicated space.* The use of the 'shared area' as a loading bay was never the specific intention of the proposed use. Rather the use of this area as demonstrated within our swept paths was as a turn-around area for waste collection vehicles in the event that they were required to exit towards the west onto Punt Road. Use of this area as a 'turn zone' accords with the description as a transitory obstruction.

Council Design Item		Response
Waste Collection Vehicle	The height of the refuse collection truck to be used for this development is to be provided to ensure that it can access the loading bay.	Waste collection will be undertaken on-street along Huckerby Street or Rout Street. However, if required this practice could occur on-site within the DDA space or the Drop-off Zone (similar to the loading). If accessing the on-site areas the waste collection vehicle would be the 6.4m long mini loader vehicle. This vehicle has a maximum operating height of 2.5m which is accommodated (as per the DDA car space). Given the building envelope above the drop-off zone and disabled space, specifications of the waste collection vehicle have been attached at Appendix C.
Bicycle Considerations	The bicycle requirements for this development are to be referred to Council's Strategic Transport unit for assessment	Further to our letter report recently submitted (Ref: G27545L-01D dated 10 December, 2019), we have determined that the proposed use has a statutory requirement for 14 bicycle spaces including 7 resident/staff spaces and 7 visitor/customer spaces. The proposed development provides 14 bicycle spaces including 12 spaces within the lower basement and 2 spaces on the ground level. The proposed bicycle spaces are provided via 12 x 'Ned Kelly' style wall-mounted racks and 1 x 'Flat-top' horizontal floor rail in accordance with AS2890.3-2015 Based on the above, we are satisfied that the provision of bicycle parking is acceptable.
Re-design of the Rear of the Building	In order to accommodate the accessible car space with a shared area, and the loading bay, could the rear corridor on the ground floor be redesigned and removed?	As discussed above, there was no intention to provide a specific loading bay on-site, rather loading and waste collection activities are proposed to occur within the disabled space or the drop-off zone at the rear of the site.

Traffix Group

Conclusions

Based on our various investigations, we are satisfied that the concerns raised by Council within their Memorandum (dated 13th February, 2020) and the additional concerns have been addressed.

Accordingly, we are satisfied that there are no traffic engineering reasons why the proposed residential hotel development at 375 Punt Road, Cremorne, should not be approved subject to appropriate conditions.

Please contact myself at Traffix Group if you require any further information.

Yours faithfully,

TRAFFIX GROUP PTY LTD

MARTIN O'SHEA

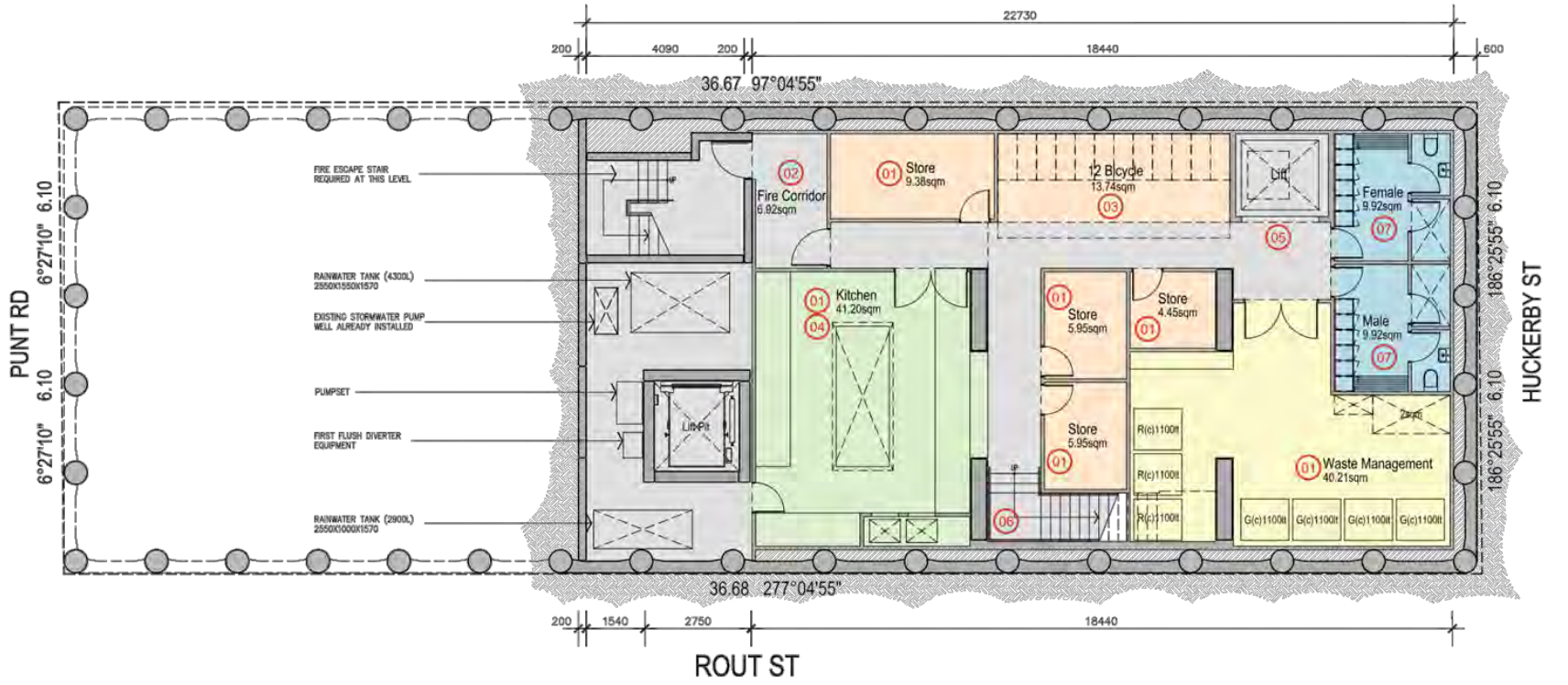
Senior Associate

Appendix A

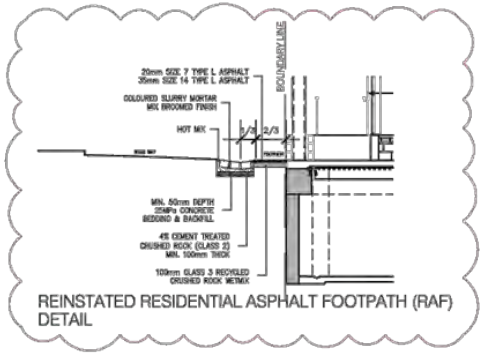
Development Plans

G27545L-02A

Attachment 15 - PLN19/0751 - 375 & 377 Punt Road - Supplementary applicant traffic report



Area	
Refuse	40.21sqm
Kitchen Area	41.20sqm
Storage	39.23sqm
Ammenities	19.85sqm
Core / Stairs / Water Storage	89.82sqm
Total Lower Basement Area	230.31sqm



REINSTATED RESIDENTIAL ASPHALT FOOTPATH (RAF) DETAIL

CHANGES

01	REVISED LAYOUT
02	NEW SMOKE LOBBY
03	NEW BICYCLE PARKING
04	NEW KITCHEN AREA
05	NEW LIFT
06	NEW STAIRS
07	NEW AMENITIES AREA

0 1 2 3 4 5

SCALE 1:100

NORTH

17 ARCHITECTS

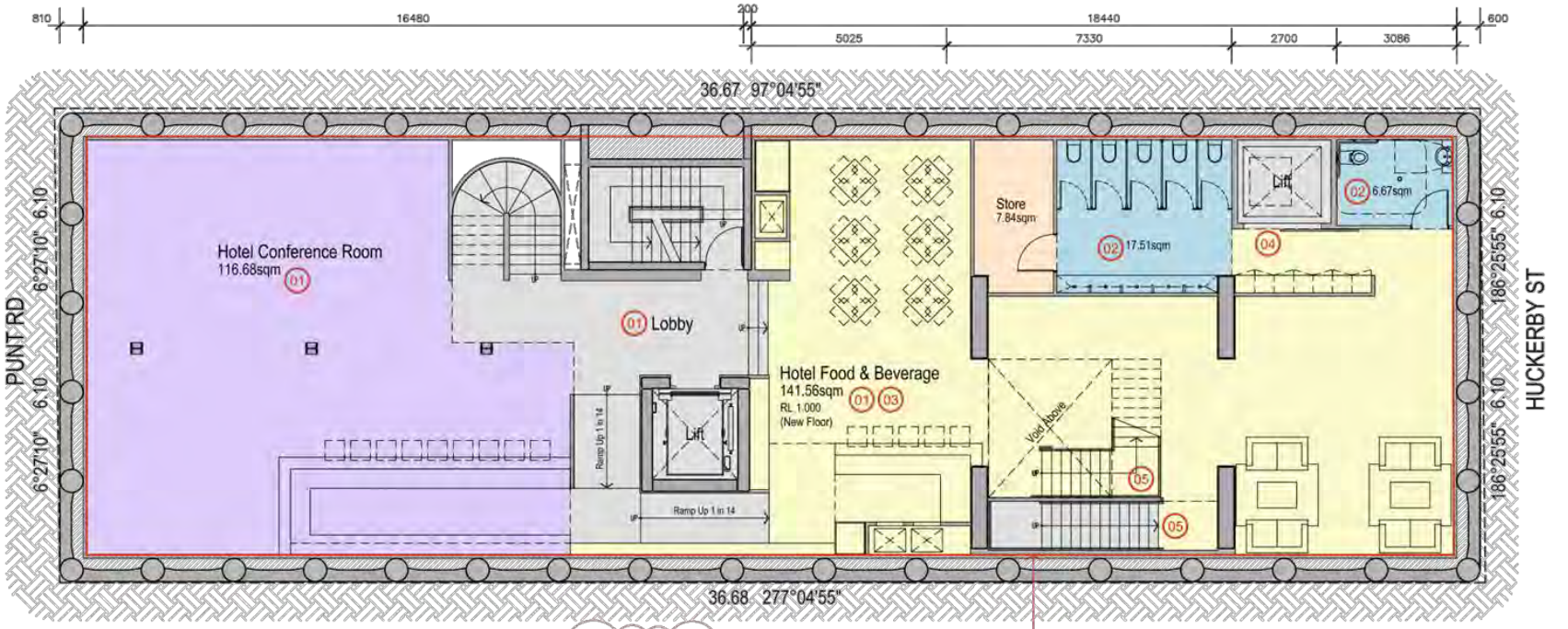
A. GENEIN & ASSOC. (AUST) PTY LTD
91 HUCKERBY STREET CREMORNE VIC

DATE DEC 2019
JOB NO 2385
REVISION Y

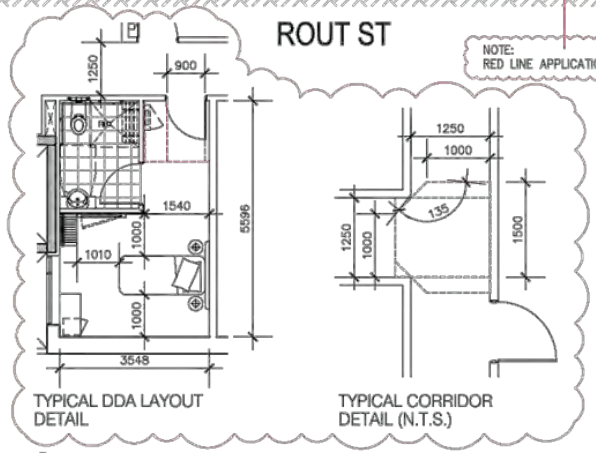
LOWER BASEMENT PLAN

PROPOSED HOTEL DEVELOPMENT AT 375-377 PUNT RD RICHMOND

Attachment 15 - PLN19/0751 - 375 & 377 Punt Road - Supplementary applicant traffic report



Area		Max. Patron
Hotel Food & Beverage	141.56sqm	106.2
Hotel Conference Room	116.68sqm	87.5
Ammenities	24.19sqm	-
Store	7.84sqm	-
Lift Lobby / Stairs	63.45sqm	-
Total Upper Basement Area	353.72sqm	193.7



CHANGES

01 REVISED LAYOUT
02 REVISED AMENITIES AREA
03 CARS REMOVED AND REPLACED WITH NEW FLOOR
04 NEW LIFT
05 NEW STAIRS

0 1 2 3 4 5

SCALE 1:100

UPPER BASEMENT PLAN

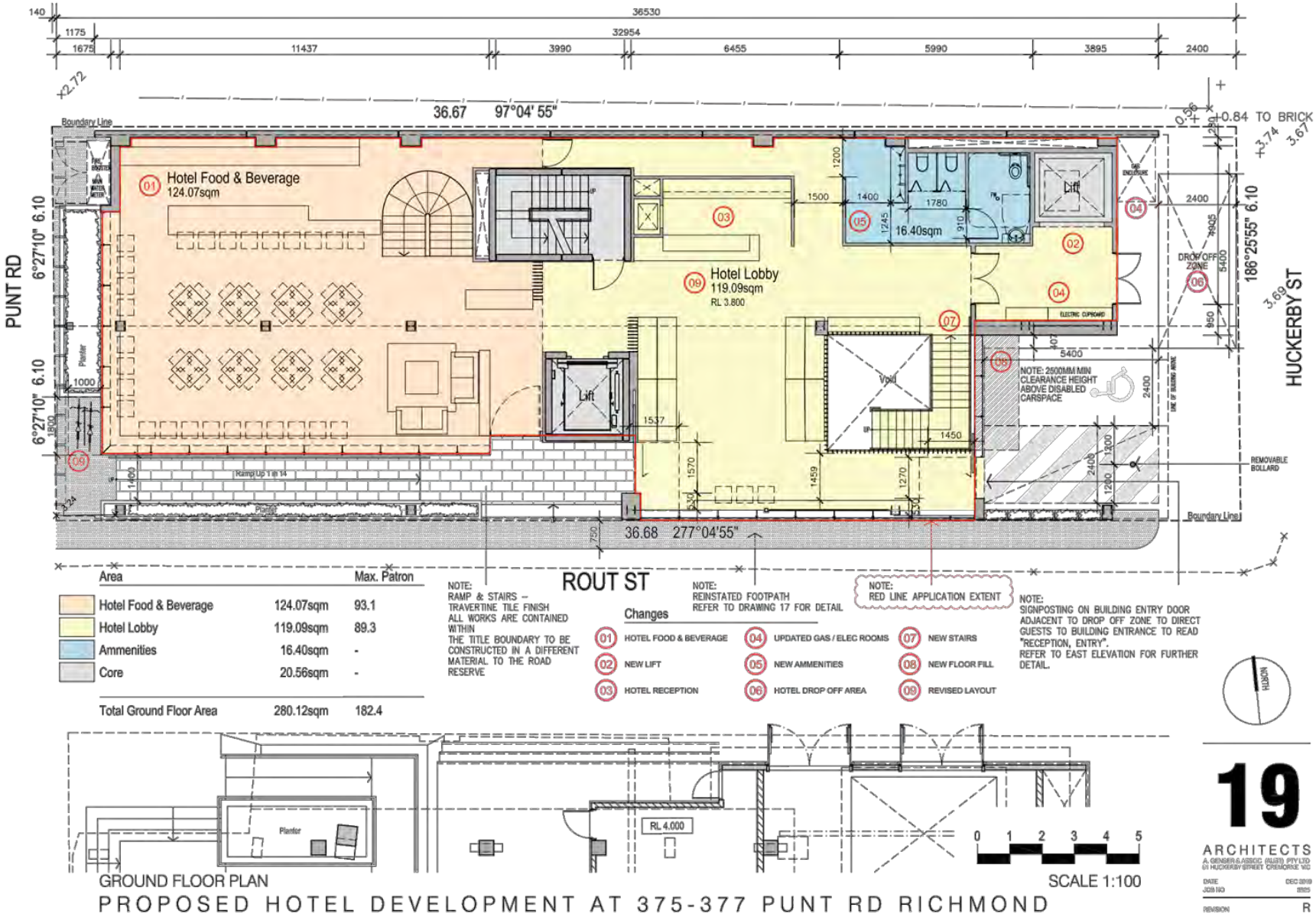
PROPOSED HOTEL DEVELOPMENT AT 375-377 PUNT RD RICHMOND

18 ARCHITECTS

A. GENSER & ASSOC. (AUST) PTY LTD
91 HUCKERBY STREET CREMORNE VIC

DATE DEC 2019
JOB NO 2133
REVISION U

Attachment 15 - PLN19/0751 - 375 & 377 Punt Road - Supplementary applicant traffic report

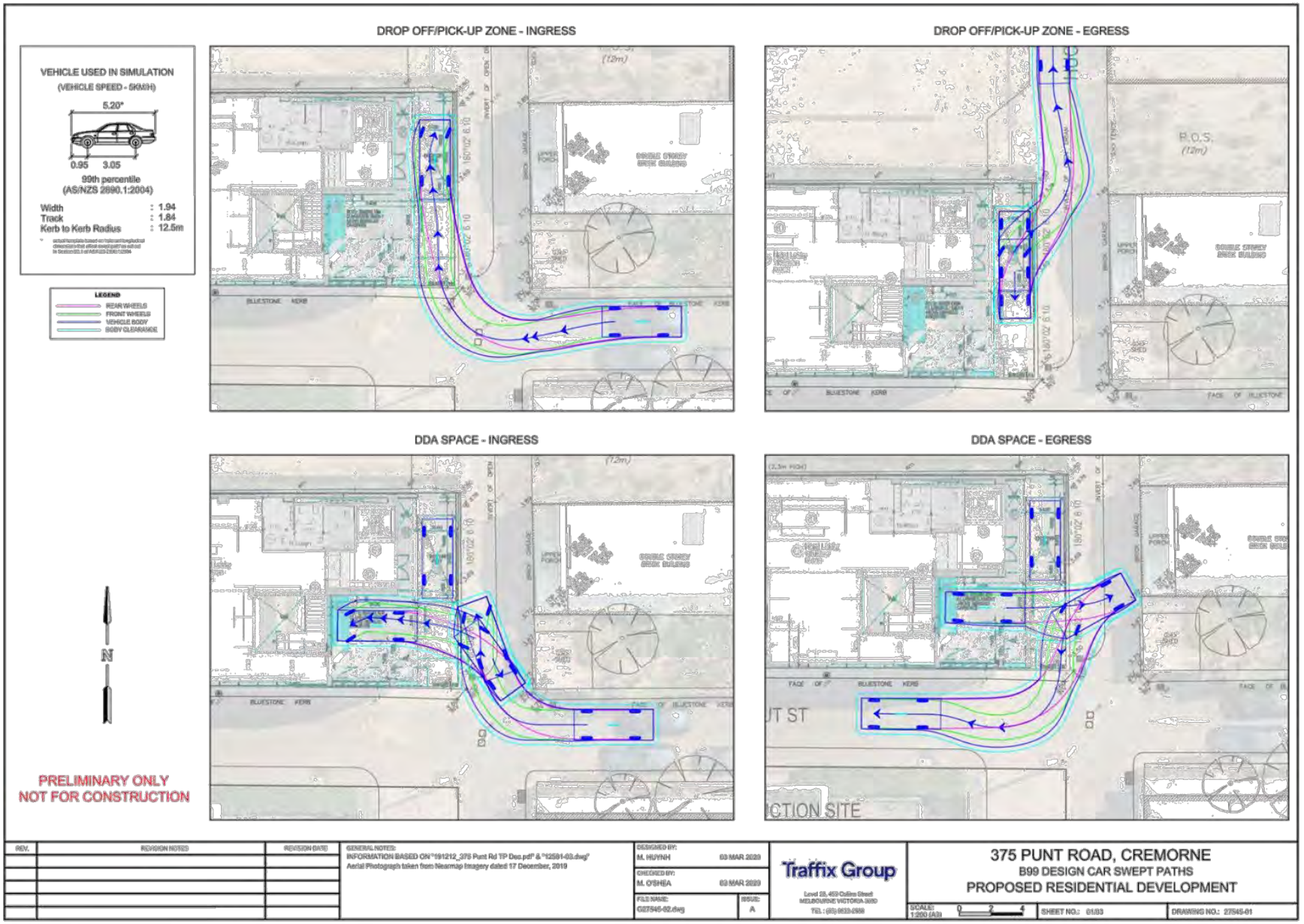


Appendix B

Swept Path Diagrams – B99 Design Vehicle

G27545L-02A

Attachment 15 - PLN19/0751 - 375 & 377 Punt Road - Supplementary applicant traffic report

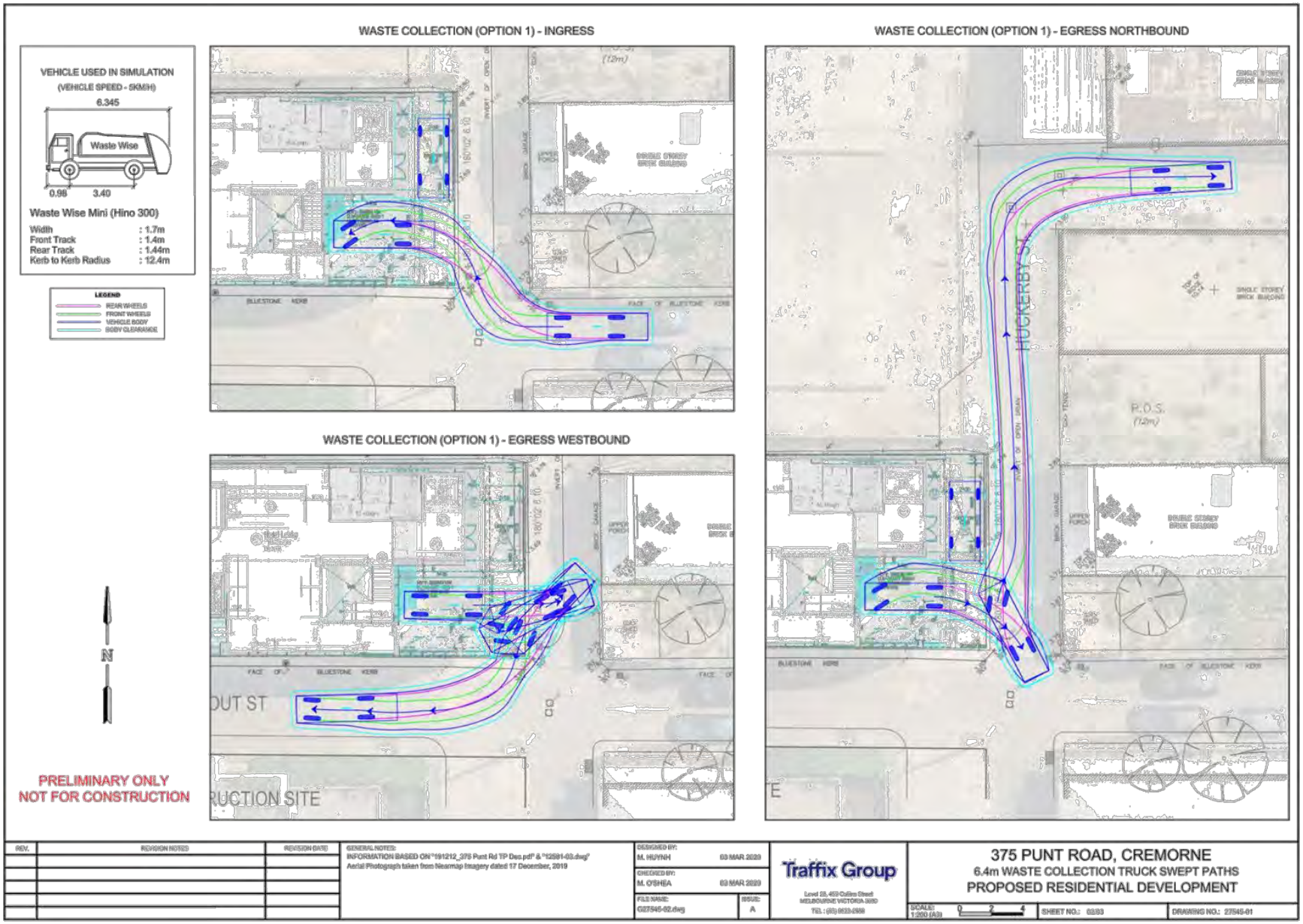


Appendix C

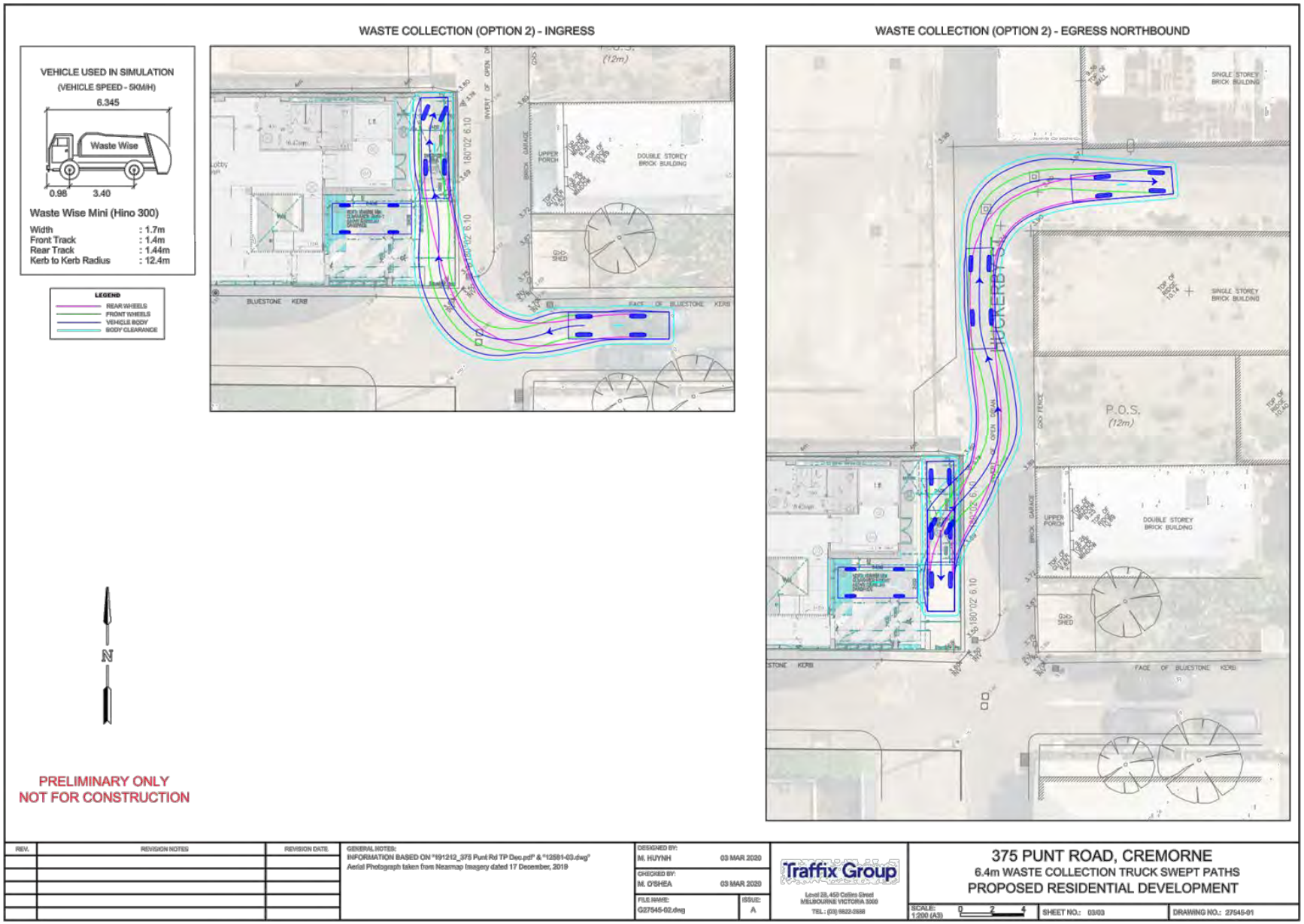
Vehicle Specifications –
6.4m Waste Collection Truck

G27545L-02A

Attachment 15 - PLN19/0751 - 375 & 377 Punt Road - Supplementary applicant traffic report



Attachment 15 - PLN19/0751 - 375 & 377 Punt Road - Supplementary applicant traffic report



Attachment 16 - PLN19/0751 - 375 & 377 Punt Road - Traffic Engineering comments

CITY OF YARRA

MEMO

To: Laura Condon

From: Artemis Bacani

Date: 13 February 2020

Subject: **Application No:** PLN19/0751
Description: Mixed Use
Site Address: 375-377 Punt Road, Cremorne

I refer to the above Planning Application received on 8 November 2019 in relation to the proposed development at 74 Hoddle Street, Abbotsford. Council's Civil Engineering unit provides the following information:

CAR PARKING PROVISION
Proposed Development
Under the provisions of Clause 52.06-5 of the Yarra Planning Scheme, the development's parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate*	No. of Spaces Required	No. of Spaces Allocated
Residential Hotel	61 suites	Rate not specified in Clause 52.06-5	To the satisfaction of the Responsible Authority	1
Food & drink	313 m²	3.5 spaces per 100 m² of leasable floor area	10	
		Total	**10 spaces + parking for residential hotel**	**1**

* Since the site is located within the Principal Public Transport Network Area, the parking rates in Column B of Clause 52.06-5 now apply.

To reduce the number of car parking spaces required under Clause 52.06-5 (including to reduce to zero spaces), the application for the car parking reduction must be accompanied by a Car Parking Demand Assessment.

Car Parking Demand Assessment
In reducing the number of parking spaces required for the proposed development, the Car Parking Demand Assessment would assess the following:

- *Parking Demand for the Residential Hotel*.
  Residential Hotels can be classified as tourist accommodation facilities. In terms of parking provision for this type of accommodation, the NSW Roads and Maritime Services' Guide to Traffic Generating Developments version 2.2 provides a parking rate of one off-street space per four bedrooms (0.25 spaces per one-room apartment). Applying a rate of 0.25 spaces per room would result in a car parking demand of 15 car parking spaces. The actual parking demand for the residential hotel would be off-set by the lack of available long-stay on-street parking, the proximity to public transport services and access to on-street car share pods.

- *Parking Demand for the Food and Drink Premises*.
  Using the statutory parking rate, the food and drink premises would generate a parking demand of 10 spaces. Patrons to the food and drink premises would be drawn from guests and visitors of the residential hotel, as well as residences and local businesses in the surrounding area.

- *Availability of Public Transport in the Locality of the Land*.
  The site is within walking distance of bus services operating along Hoddle Street/Punt Road. The site is also within walking distance of rail services that can be accessed from Richmond and East Richmond railway stations. Tram services are also conveniently located along Swan Street/Church Street.

- *Multi-Purpose Trips within the Area*.
  Patrons to the residential hotel might combine their trips by engaging in other activities or business whilst in the area.

- *Variation of Car Parking Demand over Time*.
  The peak parking demand for the residential hotel would be expected to occur during guest check-in and check-out times.

- *Convenience of Pedestrian and Cyclist Access*.
  The site is within walking distance of public transport nodes, essential facilities, shops and amenities. The on-road bicycle network is also easily accessible from the site.

Appropriateness of Providing Fewer Spaces than the Likely Parking Demand
Clause 52.06 lists a number of considerations for deciding whether the required number of spaces should be reduced. For the subject site, the following considerations are as follows:

- *Availability of Car Parking*.
  Although the demand for on-street parking in Cremorne is generally very high, patrons to the site have the option of parking on-street along Hoddle Street (outside of peak period Clearway times). The 1-hour parking restriction that operates along Punt Road and Wellington Street would ensure that parking regularly turns over. Long-stay on-street parking within the vicinity of the residential hotel is not a viable option, and staff to the residential hotel would need to make their own travel arrangements to commute to and from the site.

- *Relevant Local Policy or Incorporated Document*.
  The proposed development is considered to be in line with the objectives contained in Council's *Strategic Transport Statement*. The site is ideally located with regard to sustainable transport alternatives and the reduced provision of on-site car parking would potentially discourage private motor vehicle ownership and use.

- *Other Relevant Considerations*.
  It is assumed that guests staying at residential hotels or serviced apartments would stay for short durations and originate from outside the area, such as interstate. Use of alternative transport modes, taxis, private driver services and other transportation vehicles would influence the car parking demand of the hotel.

Adequacy of Car Parking
From a traffic engineering perspective, the waiving of parking for the proposed development is considered appropriate in the context of the development and the surrounding area. The parking demand generated by the residential hotel is expected to be up to 15 spaces, which would be accommodated on-street. We expect that many of the guests to the hotel would not be arriving to the site in private motor vehicles and would be using other modes of transportation such as public transport, taxis, private driver services etc.

The Civil Engineering unit has no objection to the reduction in the car parking requirement for this site.

TRAFFIC GENERATION
Trip Generation
The traffic generation for the site adopted by Traffix Group is as follows:

Proposed Use	Adopted Traffic Generation Rate	Weekday Peak Hour	
		AM	PM
Resident Hotel 61 Suites	0.2 movements per suite	12	12

The 12 vehicle movements per peak hour is equivalent to 1 car movement every 5 minutes.

The volumes generated by the development are considered low and should not adversely impact the traffic operation of Rout Street/Huckerby Street or the surrounding road network.

Traffic Demand for the Drop-Off/Pick-Up Zone
To determine the traffic demand for the proposed drop-off/pick-up zone off the Huckerby Street frontage, Traffix Group has adopted a rate of 0.017 cars per hotel suite during the AM and PM pick-up/drop-off peak period. This rate was established from video surveys undertaken of the drop-off/pick-up zone at the Olsen Hotel in Chapel Street, South Yarra.

Applying this rate to the 61 suites at the proposed residential hotel would equate to a demand of one car. This demand can be accommodated within the development's pick-up zone.

SITE ACCESS FROM SWAN STREET AND PUNT ROAD
As part of the streamlining of Hoddle Street, VicRoads (Department of Transport) introduced a continuous flow intersection at the Punt Road and Swan Street intersection to improve traffic flow. These works were completed in 2019.

The works included the installation of concrete barriers along the edge of the tram lane in Swan Street between Hoddle Street and Cremorne Street. The barriers prevent eastbound vehicles in Swan Street from turning right into Wellington Street.

It is acknowledged that the Cremorne area contains several one-way streets and access to the site could be challenging. Guests to the site are likely to utilise a private driver service such as a taxi or an Uber. Taxi and Uber drivers would use their own discretion to access the site.

DEVELOPMENT LAYOUT DESIGN

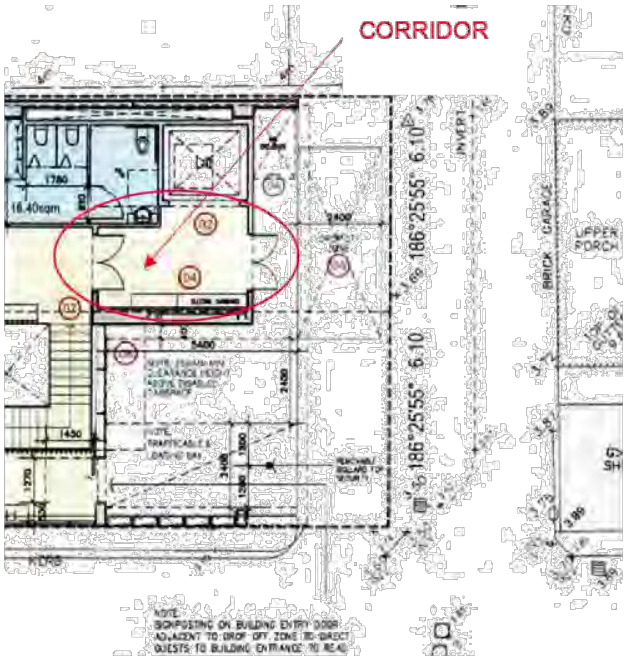
A Genser & Assoc (Aust) Pty Ltd Drawing Nos. 07 Revision R dated December 2019.

Layout Design Assessment

Item	Assessment
Access Arrangements	
Development Entrance	The entrance width to the loading zone/disable car space is approximately 5.0 metres wide.
Visibility	The setback area of 2.4 metres from the western edge of Huckerby Street is considered satisfactory to provide visibility for vehicles and pedestrians traversing along Huckerby Street.
Headroom Clearance – Entrance to Car Spaces	Not dimensioned on the drawings.
Car Parking Modules	
Accessible Car Space	The accessible car space measures 2.4 metres by 5.4 metres. To comply with the requirements of AS/NZS 2890.6:2009, a shared area measuring 2.4 metres by 5.4 metres must be installed adjacent to the accessible car space. The provision of an accessible car space would result in the removal of the loading zone to accommodate the shared area. If the accessible car space was removed to accommodate the loading bay, the applicant is to provide details on how visitors with a disability would access the site?
Drop-Off Zone	The length of the drop-off zone is to be dimensioned on the drawings. The location of the drop-off zone is considered adequate and is unlikely to hinder traffic travelling in Huckerby Street.
Clearances to Walls	The clearance from the wall of the car space nearest to Rout Street is not dimensioned on the drawings.
Vehicle Turning Movements	Swept path diagrams demonstrating access into and out of the car spaces for a B99 design vehicle has not been provided. This must include vehicle movement to and from the drop-off zone.
Other Items	
Loading Bay	The dimension of the loading bay of 2.4 metres by 5.4 metres is adequate to accommodate a B99 design vehicle or a small delivery van. The provision of the loading zone is subject to the removal of the accessible car space. If the loading bay was removed to accommodate a shared area for the accessible space, the applicant is to provide details on how the food and drink component of the development would receive their deliveries.
Waste Collection Vehicle	The swept path diagrams for a 6.345 metre long refuse collection vehicle entering and exiting the site off Huckerby Street and Rout Street are considered satisfactory. The height of the refuse collection truck has not been provided.

Design Items to be Addressed

Item	Details
Headroom Clearance	The headroom clearance at the entrance to the car spaces is to be dimensioned on the drawings.

Accessible Car Space	Should an accessible car space be provided, an adjacent shared area is to be installed to satisfy AS/NZS 2890.6:2009.
Drop-off Zone	The length of the drop-off zone is to be dimensioned on the drawings.
Clearances to Walls	The clearance to the wall of the car space nearest to Rout Street is to be dimensioned on the drawings.
Vehicle Turning Movements	Swept path diagrams for a B99 design vehicle demonstrating satisfactory access into and out of the car spaces is to be provided.
Loading Bay	The provision of the loading bay is subject to the removal of the accessible car space.
Waste Collection Vehicle	The height of the refuse collection truck to be used for this development is to be provided to ensure that it can access the loading bay.
Bicycle Considerations	The bicycle requirements for this development are to be referred to Council's Strategic Transport unit for assessment.
Internal Concrete Slab	For any internal concrete works, the finished floor levels along the edge of the slab must be set 40 mm above the edge of Huckerby Street/Rout Street – Council Infrastructure requirement.
Re-design of the Rear of the Building	In order to accommodate the accessible car space with a shared area, and the loading bay, could the rear corridor on the ground floor be re-designed or removed? 

ENGINEERING CONDITIONS
Civil Works

Upon the completion of all building works and connections for underground utility services,

- The footpath along the property's Punt Road road frontage must be stripped and re-sheeted to Council's satisfaction and at the Permit Holder's cost. The footpath must have a cross-fall of 1 in 40 or unless otherwise specified by Council.

Road Asset Protection

- Any damaged roads, footpaths and other road related infrastructure adjacent to the development site as a result of the construction works, including trenching and excavation for utility service connections, must be reconstructed to Council's satisfaction and at the developer's expense.

Construction Management Plan

- A Construction Management Plan must be prepared and submitted to Council. The Plan must be approved by Council prior to the commencement of works. A detailed dilapidation report should detail and document the existing and post construction conditions of surrounding road infrastructure and adjoining private properties.

Impact of Assets on Proposed Development

- Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.
- Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, valves or meters on Council property will be accepted.

Removal, Adjustment, Changing or Relocation of Parking Restriction Signs

- No parking restriction signs or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.
- Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.

Discharge of Water from Development

- Only roof runoff, surface water and clean groundwater seepage from above the water table can be discharged into Council drains.
- Council will not permit clean groundwater from below the groundwater table to be discharged into Council's drainage system. Basements that extend into the groundwater table must be waterproofed/tanked.

ADDITIONAL ENGINEERING ADVICE FOR THE APPLICANT

Item	Details
Legal Point of Discharge	The applicant must apply for a Legal Point of Discharge under Regulation 133 – Stormwater Drainage of the *Building Regulations* 2018 from Yarra Building Services unit. Any storm water drainage within the property must be provided and be connected to the nearest Council pit of adequate depth and capacity (legal point of discharge), or to Council's satisfaction under Section 200 of the *Local Government Act* 1989 and Regulation 133.

Attachment 16 - PLN19/0751 - 375 & 377 Punt Road - Traffic Engineering comments

Supplementary Engineering Comments

In response to officer concerns in relation to staff parking, accessible parking and loading bay operation the applicant provided a supplementary letter from Traffix Group dated 3 March 2020 (included in Agenda). Council's Traffic Engineers reviewed this information provided the following supplementary comments on 1 April 2020:

Further to my email response dated 14 February 2020 and the Traffix Group Traffic Engineering Assessment report dated 3 March 2020, I advise the following:

Staff Parking
We agree that no staff parking is to be provided at the site. The site is located close to public transport nodes.

Accessible Parking
We agree that the accessible parking space to should not be signed or line marked for this use. The proposed multi-use of this space for accessible parking, drop/off and deliveries is acceptable. Traffix Group have indicated that surveys of other hotel use indicates a maximum demand of 1 car at any time would occur in association with the guest pick-up/drop-off. This activity can be accommodated at either the accessible parking bay or in the 2.4m wide drop-off zone.

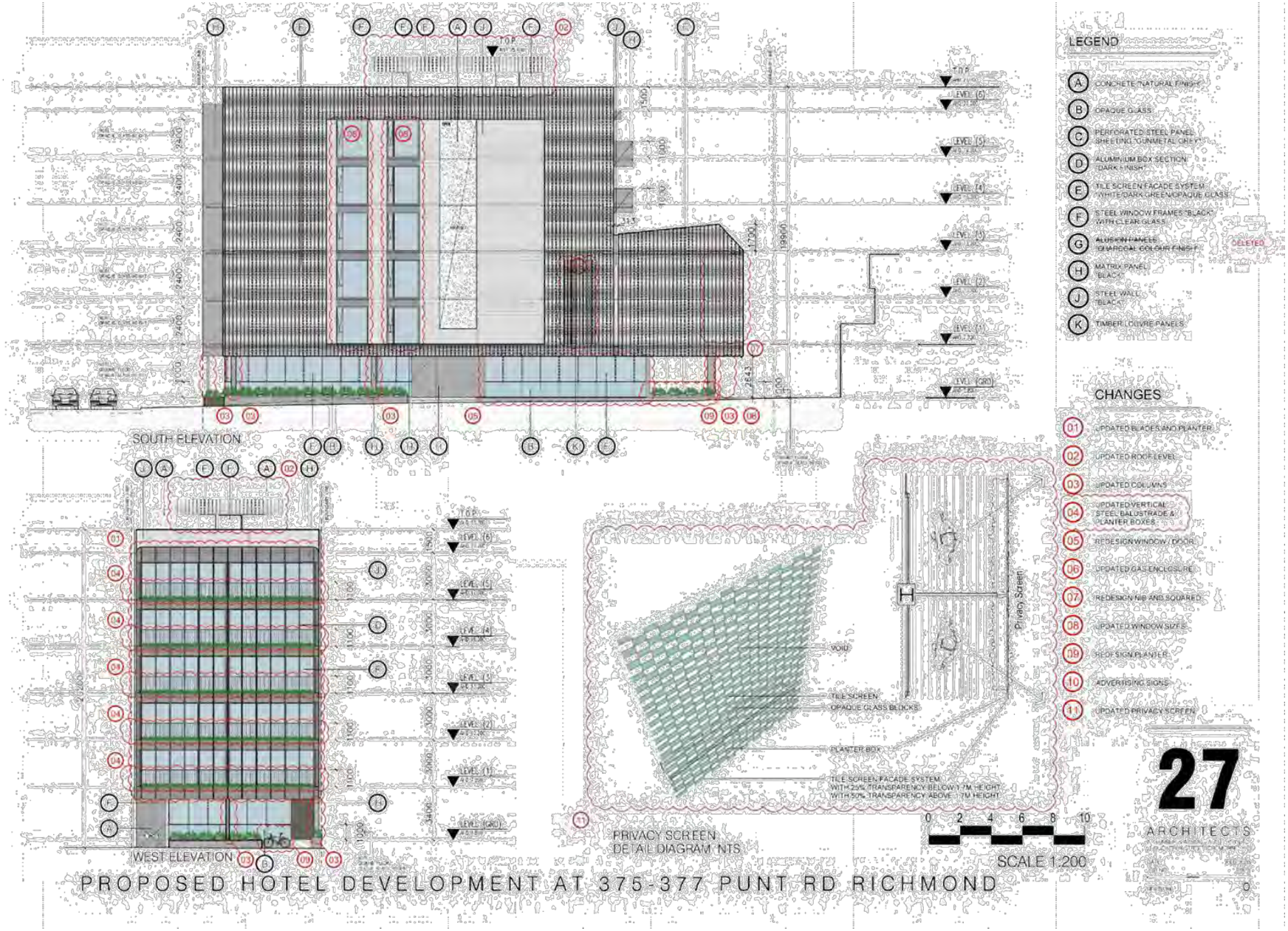
Drop-off Zone
The 2.4 metre wide drop-off zone situated parallel to Huckerby St is considered adequate. The width of the bay should not present any access issues for traffic traveling along Huckerby St or car doors opening into Huckerby St or the gas meter cage. Huckerby St carries very low traffic volumes and the probability of conflict with a passing vehicle and a parked vehicle as passengers/people are alighting from a parked vehicle, is very remote. We are satisfied with Traffix Group's advice regarding car door opening into Huckerby St in that it does not present a problem for a moving vehicle preceding along Huckerby St.

Loading Bay
Deliveries to the site would be accommodated either within the accessible parking bay or the drop-off zone. We have no objection to the use of the on-site spaces to accommodate delivery vehicles.

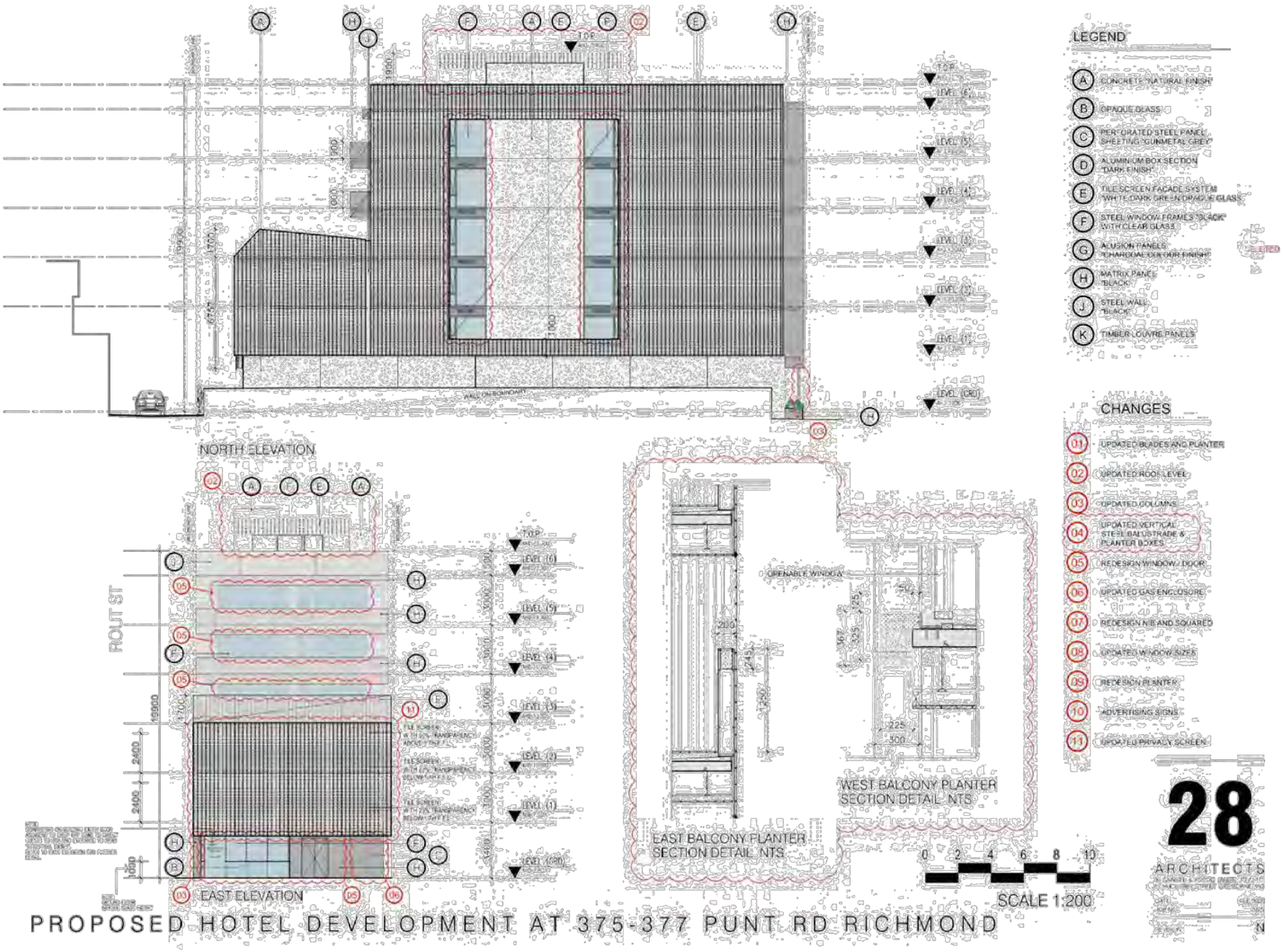
Regards

Artemis Bacani
Road Development Engineer
Traffic and Civil Engineering

Attachment 17 - PLN19/0751 - 375 & 375 Punt Road - Revised elevations to address Open Space comments



Attachment 17 - PLN19/0751 - 375 & 375 Punt Road - Revised elevations to address Open Space comments



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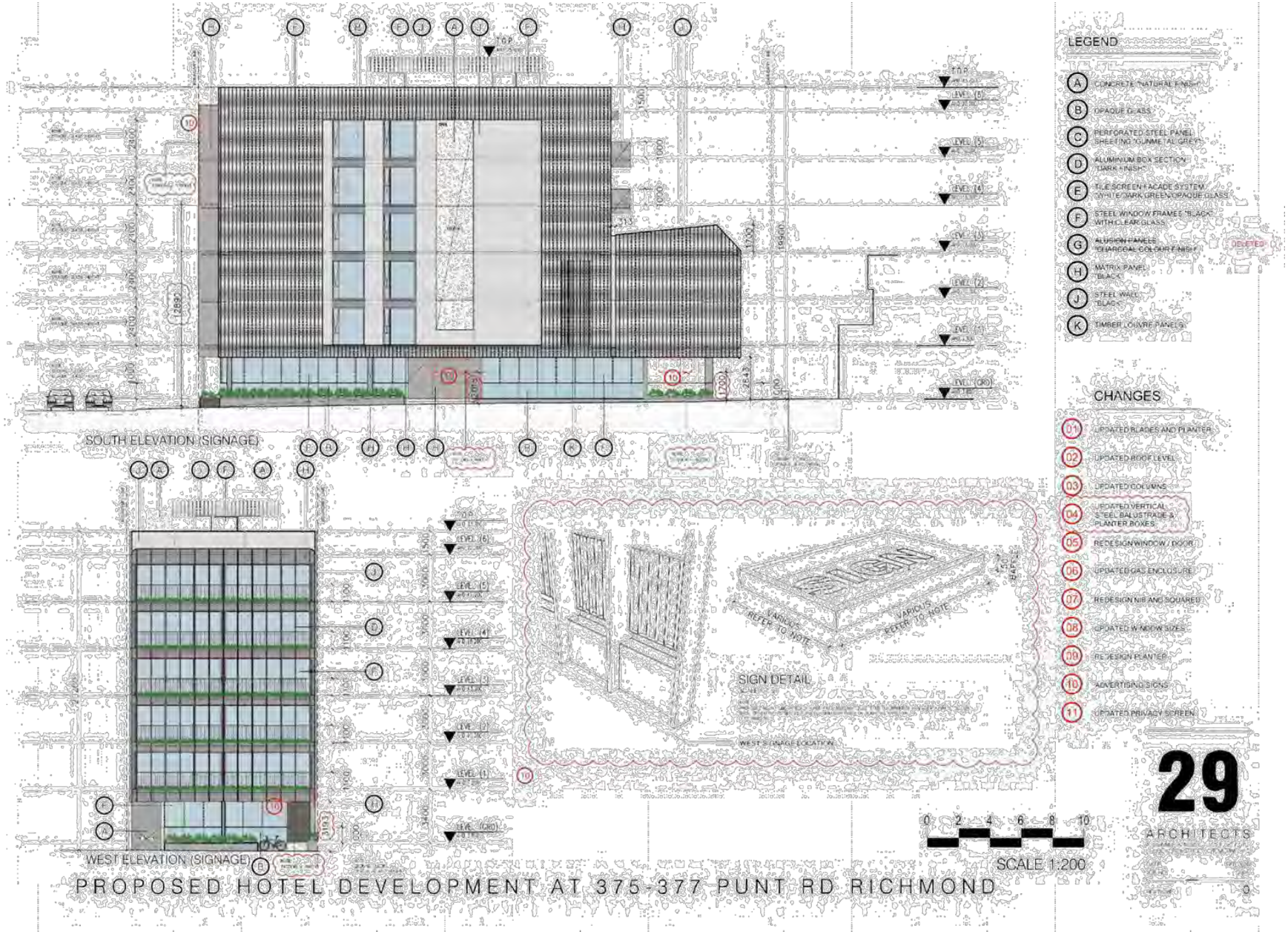

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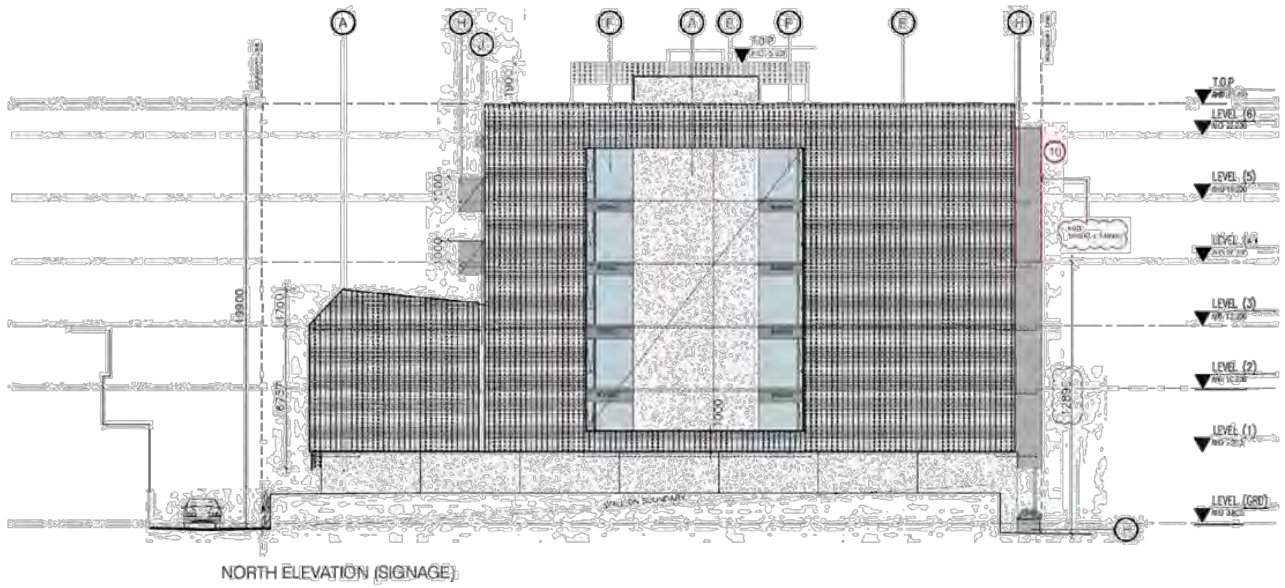

PROPOSED HOTEL DEVELOPMENT AT 375-377 PUNT RD RICHMOND

Attachment 18 - PLN19/0751 - 375 & 377 Punt Road - Applicants supplementary landscaping advice

JOHN PATRICK

LANDSCAPE ARCHITECTS
ENVIRONMENTAL HORTICULTURALISTS
LANDSCAPE HERITAGE CONSULTANTS
CONSULTANT ARBORISTS

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5 February 2020

Dear Julia

Re: **PLN19/0751 375 Punt Road, Richmond**

There is limited soil volumes to each of the planters fronting Punt Road an allowance governed by the weight restrictions. This is the limiting factor allowing for guaranteed long term health of the plantings. Reasonable soil volumes are always encouraged to deliver an outcome which is in line with expectations.

Soil Volumes

Soil volumes are necessary for plantings to succeed in Melbourne's conditions. The plant palette which survives these conditions is also limiting. We prefer to have plants which are guaranteed to grow and complete the designed vision of our clients. The current soil volumes which have been allowed, may only support tough succulents. Drawing 28 shows sections of the east and west planters of the soil volumes for the planters which may support the succulents.

Maintenance

Maintenance requirements of all plantings may be accessible from on ground, from balconies and/or through windows. My understanding is there is no requirement for abseiling or cherry picker (refer to drawing 27).

Soil volumes may also aid with a potential reduction in maintenance (i.e. potential reduction in drying, premature leaf drop, unsightly plants which have burnt leaves, pest and diseases). The raised planter with the Parthenocissus tricuspidata 'Veitchii' is in natural ground and does have sufficient soil volume for the requirements of a climber (ie 1m3 soil required for 10m2 climber 'canopy' Pers comm from John Rayner)

Maintenance requirements for *Mesembryanthemum* X 'Magenta' & *Aptenia cordifolia* should be minimal once established with the succulents covering the soil surface and trailing down the side of each planter. Plantings should be monitored during establishment for plant health by suitably qualified horticultural professionals with knowledge of intensive roof systems.

Ground floor Climbers to Southern Façade

Parthenocissus tricuspidata 'Veitchii' is to be grown up the columns and possibly under the roof. A wire trellis can be utilised here to direct the climbers as required for a controlled climb. Use of *Parthenocissus* sp. is cost effective to cheaply green cloth the building as this plant self-clings, and is one of Melbourne's

Attachment 18 - PLN19/0751 - 375 & 377 Punt Road - Applicants supplementary landscaping advice

proven species, used in many applications around the city. In most cases I would say damage to the building was anecdotal at best. The Melbourne university Economics building has a nice application of Boston Ivy growing up concrete columns and clinging across the ceiling. Parthenocissus tricuspidata 'Veitchii' is also a smaller leaved cultivar of the more common Boston Ivy. It has less vigour and hence easier to maintain.

We can provide details and maintenance specifications for the plantings if required in more detail.

Yours Sincerely

Christopher Newman

Landscape Architect

Attachment 19 - PLN19/0751 - 375 & 377 Punt Road - Open Space comments

Memo

To:	**Laura Condon**
Cc:	
From:	**Julia Mardjuki**
Date:	**31/01/2019**
Subject:	**PLN19/0751 375 Punt Road, Richmond**

Dear Laura

I have reviewed the landscape plans from John Patrick dated October 2019 and referenced them with the architectural drawings provided by A Genser and Assoc (Aust) dated December 2019.

I need to get a better understanding of the green elements along the western façade to determine if they are feasible. Ideally I would like to see a section from building to planter box. In drawing 27 of the architectural plans, they refer to item 4 as 'updated steel balustrade and removal of planter boxes'. I'm assuming this is not accurate since the presence of a green element remains on the drawings and is also on the landscape plans?

The drawings indicate the planter boxes from level 1 up will have a 225mm width, but there is no information on depth. The landscape specification indicates a specialist consultant should provide information on the west facing planters. Ideally this is information they provide at this point.

I also require additional information on the planters for the privacy screen on levels 1 and 2. What is the width and depth of the planter box and what is the plant selection there?

The planting proposed for the ground floor is acceptable. In previous open space referral comments, it was recommended the Boston Ivy be replaced as it is an aggressive climber that can cause damage to a building's facade. I note this was previously changed, but now it has been changed back. The final plant selection can be at the body corporate's discretion given this is within their title boundary and there is no adjacent building off Rout Street it will impact.

As a general note, we appreciate the addition of green spaces and vertical green elements, however we do not consider it acceptable to expect abseiling as part of landscape maintenance works. At this stage I do not clearly understand the expectations around maintenance. The specifications simply say 'to accepted horticultural practices', but given the restrictions in access, I think further information will need to

Attachment 19 - PLN19/0751 - 375 & 377 Punt Road - Open Space comments

be provided for us to provide a response. Beyond selecting plants that can withstand harsh conditions, there will need to be regular pruning, replacement, fertilizer use etc.

Please feel free to contact me if you would like me to clarify any of these points.

Sincerely

Julia Mardjuki
Open Space Planner

Supplementary comments:
In response to the above advice the applicant provided further detail in relation to the façade planters and species selection contained in a letter by Christopher Newman of John Patrick Landscape architects dated 5 February 2020 and a plan provided by Architects, Plan 28, Job No.2925 Revision N 9 (also included as attachments to the Agenda). This information was provided to Council's Open Space Unit who provided further comments of 26th February 2020, as follows:

- *I've had a look through their comments and the revised drawings and I think they're fine.*
- *The planter depths on the east balcony are quite narrow, but given the species selection, I think it should be adequate.*

  Thanks Julia